

A large, stylized blue flower with five petals is centered on the page. The petals are a medium blue, and the center is a lighter blue. The flower is set against a light blue background.

# California Early Care and Education Workforce Study

Licensed Child Care Centers  
Statewide 2006

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# **Introduction**

Reflecting the growth in the number of working families with young children and the importance of early learning, the U.S. has witnessed an explosion of early care and education services in centers and homes over the last 30 years. What was once a relatively small, unnoticed sector of the economy is now viewed as a growing industry with substantial economic impact in terms of widespread use, consumer and public spending, and job creation (National Economic Development and Law Center, 2001). At the same time, researchers in cognitive science, psychology and education, among others, have expanded our understanding of the developmental significance of the early years, underscoring the importance of high-quality early learning settings to ensure that children realize their potential (Shonkoff & Phillips, 2000).

Evidence that the quality of early care and education settings can and does influence children's development during and beyond the preschool years (Gormley, Gayer, Phillips & Dawson, 2004; Henry, Gordon, Henderson & Ponder, 2003; Reynolds, Temple, Robertson & Mann, 2001; Schulman, 2005; Schulman & Barnett, 2005; Schweinhart et al., 2005) has increasingly shifted attention to the early care and education workforce, and the extent to which those who care for young children are adequately prepared to facilitate their learning and well-being.

Creating a skilled and stable early care and education workforce, however, has emerged as a daunting challenge. Reflecting a shortage of resources throughout the industry, employment in the field is characterized by exceptionally low pay, leading to high turnover that, in turn, undermines program quality and children's development (Helburn, 1995;

Whitebook, Howes & Phillips, 1998; Whitebook, Sakai, Gerber & Howes, 2001).

High turnover, coupled with the expansion of services, has led to a high demand for personnel in the field, and has also contributed to maintaining relatively low requirements for working with young children. As a result, employment qualifications in the field do not tend to match the level of skills and understanding truly needed to meet the demands of this work. This gap between professional challenges and regulatory requirements is further exacerbated by changes in the child population – notably the increasing numbers of children from immigrant families who are dual language learners, and the growing numbers of children identified as having special developmental needs. Many students of early childhood education still do not receive training related to serving such children (Whitebook, Bellm, Lee & Sakai, 2005).

The recognition that the workforce is the backbone upon which early care and education services depend has underscored many of the activities undertaken by First 5 commissions at the state and local level. Since the program's inception in 2000, for example, California has spent over \$240 million on the state- and county-level effort known as CARES, which has awarded stipends to over 40,000 ECE practitioners for pursuing further training and education. Increasing attention is also turning to institutions of higher education to assess the resources they will need, in order to adapt their programs and to support students in meeting more rigorous standards for working with young children (Whitebook, Bellm, Lee & Sakai,

2005).

This report is intended to identify the characteristics of California's current center-based early care and education workforce, both in light of proposed new requirements, and to help assess the size of the task of training the next generation of workers to care for young children.

## Licensed Child Care Centers in California

In California, child care provided outside of a home environment is called a child care center. A child care center is usually located in a commercial building, school or church. In a child care center, non-medical care and supervision can be provided for infants (birth to 23 months), preschoolers (two to five years) and school-age children (kindergarten students and older) in a group setting for periods of less than 24 hours.

Almost all child care centers are required to be licensed by the Community Care Licensing Division (CCLD) of the California Department of Social Services. Centers that are exempt from licensing include certain school-age and preschool programs run by Park and Recreation Departments and school districts; informal arrangements in which no money changes hands for care, such as co-ops and play groups; on-site military child care programs; and programs administered by the Department of Corrections.

To receive a license, child care centers must meet the requirements established in the Code of California Regulations Title 22 related to personnel, the facility, and the number and ages of children served.<sup>1</sup>

### *Personnel requirements include:*

- Child care centers must have qualified directors and qualified teaching staff. Directors and teachers must have 12 units in early childhood education. To be a qualified infant teacher, at least three of the units must be related to the care of infants. Directors must

have three units in administration or staff relations.

- Employees must have a fingerprint clearance from the California Department of Justice and the Federal Bureau of Investigation, and have a Child Abuse Index Clearance.
- All staff must have a TB clearance and a health report.
- At least one person on-site must have 15 hours of health and safety training approved by the Emergency Medical Services Authority. This includes a current CPR and First Aid Certificate.

### *Requirements for a child care facility include:*

- 35 square feet of indoor play space per child, 75 square feet of outdoor space per child, and one toilet and one sink for every 15 children.
- Compliance with CCLD health and safety requirements pertaining to storage space, equipment and materials, drinking water, food preparation, storage of dangerous materials, adult/staff restrooms, isolation areas for sick children, and facility temperature.
- Compliance with all other state, federal, and/or local codes and regulations such as zoning, building restrictions, fire, sanitation, and labor requirements.

### *Number and ages of children served:*

- The total number of children who can be served in a facility is called the licensed capacity of the center. The licensed capacity is based on the physical space of a site (as described

<sup>1</sup> For more information about child care center licensing see: <http://cclld.ca.gov>.



above) and the number of staff available to provide care.

- CCLD issues separate licenses for the different ages of children that can be served: infants, preschoolers, and school-age children. Each age group requires a specific ratio of children to adults:

Infants:	1 adult to 4 children
Preschoolers:	1 adult to 12 children
School-age children:	1 adult to 14 children

#### *Additional Regulations for Child Care Centers*

In addition to the Title 22 regulations described above, centers contracted with the California Department of Education (CDE) must meet the regulations set by Title 5 of the California Code of Regulations. Head Start centers are also required to meet additional regulations established by the federal Head Start Bureau. Table 1.1 below compares the

educational levels for child care center staff required by Titles 5 and 22. Head Start educational requirements are not included in the chart, as the Head Start staffing structure is unique to that program. Fifty percent of all Head Start teachers nationwide in center-based programs, however, are required to have an AA, BA or advanced degree in early childhood education, or an AA, BA or advanced degree in a field related to early childhood education, in addition to experience teaching preschool children.

According to the 2005 *California Child Care Portfolio*, there were 10,143 child care centers with 639,443 child care spaces (commonly referred to as “slots”) in the state in 2004. Six percent of these slots were licensed for infants, 70 percent for preschoolers and 24 percent for school-age children. Child care centers made up 64 percent of all licensed child care spaces, with family child care homes comprising 36 percent of the capacity (California Child Care Resource & Referral Network, 2005).

**Table 1.1. Comparison of Title 22 and Title 5 Regulations for Child Care Center Staff**

Position	Title 22	Title 5 (CDE-contracted centers)
Assistant teacher	None	6 units of college-level Child Development (CD)/ Early Care and Education (ECE)
Associate teacher	Not specified	12 units of college-level CD/ECE
Teacher	12 units of college-level CD/ECE 6 months experience	24 units of college-level CD/ECE 16 units of General Education (GE)
Site supervisor	Not specified	AA or 60 units including: 24 units of CD/ECE 16 units GE 8 units administration
Program director	12 units of college-level CD/ECE 3 units administration	BA or higher including: 24 units of CD/ECE 8 units of administration

## Purpose of the Study

Recognizing the critical role that early childhood educators play in the lives of California's children and families, First 5 California commissioned in 2004 a statewide and regional study of the early care and education (ECE) workforce in licensed child care centers and licensed family child care homes. The overall goal of the study was to collect information on the current characteristics of this workforce – particularly its educational background, and its potential need and demand for further opportunities for professional development.

In partnership, the Center for the Study of Child Care Employment (CSCCE) at the University of California at Berkeley, and the California Child Care Resource and Referral Network (Network), have gathered this information to help state and local policy makers and planners assess current demand at teacher training institutions; plan for further investments in early childhood teacher preparation; and gain a baseline for measuring progress toward attaining a well-educated ECE workforce whose ethnic and linguistic diversity reflects that of California's children and families.

The present report contains the study's findings for licensed child care centers that have infant and/or preschool licenses. Some of these centers have school-age licenses as well. This study, however, does not include data for centers that have a license to serve school-age children only.

A separate report containing information about licensed family child care homes in California can be found at the First 5 California web site, <http://www.ccfcc.ca.gov>.

In studying the state's population of licensed child care centers, our primary objectives were to:

- Compile baseline data on the demographics, wages, tenure, and educational characteristics of child care center directors, teachers and assistant teachers;
- Identify the extent to which their educational backgrounds vary with respect to ethnicity, language and age;
- Profile the business and program characteristics of centers, including organizational status and participation in various subsidy programs;
- Profile the children that centers with varying characteristics serve, in terms of numbers, ages, subsidy status, and special needs;
- Document the professional preparation of licensed child care center staff to work with children who are dual language learners and/or have special needs;
- Develop a sound estimate of the number of assistant teachers, teachers and directors in licensed child care centers; and
- Identify differences among regions of the state, between centers with and without public subsidies, and between centers serving and not serving infants, with respect to the licensed child care center staff, along the dimensions noted above.

# **Study Design**

## Survey Population and Study Sample

First 5 California sought statewide information about directors, teachers and assistant teachers employed at licensed child care centers, as well as regional comparisons with respect to demographics and child care supply. As shown below, we divided the 58 counties of the state into four regions: Northern California, the Bay Area, Central California and Southern California.

The survey population included all 8,740 active, licensed child care centers serving children birth to five years that were listed as of January 2004 with state-funded child care resource and referral (R&R) agencies. Centers licensed to serve only school-age children were not included in the survey population. These data were aggregated, cleaned and verified by the California Child Care Resource and Referral Network (Network).

Due to cost and time constraints, we developed a statewide random sample of 1,800 licensed centers: 400 centers in each of the four regions, with the exception of a 600-center sample in Southern California, 200 of which were in Los Angeles County and 400 in other southern counties. This approach allowed us to assess the influence of Los Angeles on the region as a whole. We developed the sampling plan to ensure that there were enough completed interviews in each of the four regions to provide a reliable profile of each area, and to compare the data across regions.

Within each region, between 17 and 19 percent of centers have a license to serve infants. To ensure that these infant centers were accurately represented in the final sample of interviewed centers, we divided the centers within each region into two random sampling groups: namely, centers with and without an infant license. The number of completed surveys targeted for each group was proportional

Table 2.1. *Study Regions by County*

<b>Northern</b> 730 licensed centers*		<b>Bay Area</b> 2,037 licensed centers*	<b>Central</b> 1,618 licensed centers*	<b>Southern</b> 4,355 licensed centers*
Alpine	Mono	Alameda	Fresno	Imperial
Amador	Nevada	Contra Costa	Inyo	Los Angeles
Butte	Placer	Marin	Kern	Orange
Calaveras	Plumas	Napa	Kings	Riverside
Colusa	Shasta	San Francisco	Madera	San Bernadino
Del Norte	Sierra	San Mateo	Mariposa	San Diego
El Dorado	Siskiyou	Santa Clara	Merced	Santa Barbara
Glenn	Sutter	Santa Cruz	Monterey	Ventura
Humboldt	Tehama	Solano	Sacramento	
Lake	Trinity	Sonoma	San Benito	
Lassen	Tuolumne		San Joaquin	
Mendocino	Yolo		San Luis Obispo	
Modoc	Yuba		Stanislaus	
			Tulare	

\* Source: California Child Care Resource and Referral Network.

Figure 2.1. *Study Regions*



Table 2.2. *Sampling and Weighting Plan*

		Northern California	Bay Area	Central California	Southern California, excluding Los Angeles County	Los Angeles County	Total
Centers with infants	Population	122	389	305	458	361	1,635
	Targeted interviews	68	76	76	76	36	332
	Completed interviews	60	84	85	81	39	349
	Sample weight*	1.91	4.26	3.17	5.13	8.97	-
Centers without infants	Population	608	1,648	1,313	1,922	1,614	7,105
	Targeted interviews	332	324	324	324	164	1,468
	Completed interviews	279	353	375	389	176	1,572
	Sample weight*	1.94	4.25	3.15	4.39	8.07	-
Total interviews completed		339	437	460	470	215	1,921

to the group's occurrence in the universe. In the Bay Area, for example, 19 percent of centers had an infant license; therefore, to reach our total of 400 interviews, we targeted 76 interviews with centers holding an infant license (19 percent of 400) and 324 interviews with centers not holding such a license.

We completed 1,921 interviews, exceeding some targets, as described in the Survey Completion and Response Rate section below. As a result of the random sampling process, a portion of licensed centers from every region of the state was included in the survey, based on the size of each region's center population. Similarly, centers serving infants were included in the survey at the same proportion as they occurred in the center population.

In addition, nine counties (Alameda, Los Angeles, Marin, Merced, Mono, Sacramento, San Francisco, Santa

Barbara, and Santa Clara) contracted for county-specific studies of their licensed child care homes and centers. These studies made use of the interviews conducted for the statewide survey, as well as additional interviews conducted in each county to ensure a sizeable enough sample to generate reliable county-level findings. These reports provide additional information about variations in the workforce among different parts of the state, and are available at the First 5 California web site, <http://www.ccfcc.ca.gov>.

As shown above, the number of licensed centers varies considerably by region, ranging from 730 in Northern California to 4,355 in Southern California. In order to generate statewide population estimates that accurately reflect the variations among regions in numbers of centers, we weighted each interview. Data were weighted by region, and were based on the proportion of centers contacted for



the study to licensed centers in the region.

*Note:* All results presented throughout this report are based on weighted data.

## Survey Instrument

The Child Care Center Survey used in this study has built upon numerous workforce studies conducted by the Center for the Child Care Workforce over the last three decades (Center for the Child Care Workforce, 2001). Specifically, the survey instrument was adapted from the 2001 California Child Care Workforce Study, an eight-county effort funded by the David and Lucile Packard Foundation as a pilot for this statewide survey (Whitebook, Kipnis, Sakai, Voisin, & Young, 2002).

Certain changes were made to the 2001 survey to capture specific information requested by First 5 California to assist in its workforce development planning related to the expansion of publicly funded preschool services. Prior to data collection, the survey instrument and data collection procedures were approved by the Committee for the Protection of Human Subjects at the University of California at Berkeley, and were then pre-tested in the field.

Telephone interviews were conducted in English with directors of child care centers, who answered questions both about themselves and on behalf of their teaching staff. A very small number of eligible centers (0.72 percent) were unable to complete the interview because of a language barrier.

For the three groups of child care center staff, directors, teachers and assistant teachers, the questions in the survey addressed:

- *Demographics:* age, ethnicity, and languages spoken;
- *Levels of education and training:* highest level of education; type of degree, if any; college credit related to Early Childhood Education; credit and non-credit training related to special needs children and English language learners; permits and credentials; and participation in local CARES programs;<sup>1</sup>
- *Employee characteristics:* wages, tenure, and turnover of teachers and assistant teachers; and
- *Business and program characteristics:* number and ages of children served, including children with special needs, and those who receive government subsidy; public contracts with the California Department of Education or Head Start; organizational status, including private for-profit, private nonprofit and public.

## Data Collection Procedures

We mailed a notification letter, describing the purpose of the survey and encouraging participation, to all centers likely to be interviewed based on their order in the random sample. The letter was signed by representatives of First 5 California, the Center for the Study of Child Care Employment at the University of California, Berkeley, and the California Child Care Resource and Referral Network. In addition to the letter, each center received an Interview Worksheet, outlining the survey questions, to help

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<sup>1</sup> Over 40 counties in California have implemented professional development stipend programs for child care center teachers, administrators, and family child care providers based on the California CARES program model. These initiatives are intended to help build a skilled and stable early education workforce by providing monetary rewards, based on participants' education levels and continued commitment to their professional development.



Table 2.3. *Survey Response Rate*

	Number of centers	Percentage of sample	Percentage of eligible centers
Sample released and dialed	4,809	100.0%	-
Ineligible: out of business	101	2.1%	-
Presumed ineligible*	382	7.9%	-
Eligible	4,326	90.0%	100.0%
Complete	1,921	39.9%	44.4%
No response, presumed eligible**	494	10.3%	11.4%
Refusal	858	17.8%	19.8%
Multi-site refusal***	187	3.9%	4.3%
Respondent not available or target reached****	794	16.5%	18.3%
Communication barrier	31	0.6%	0.7%
Other reasons for non-completion	41	0.9%	0.9%

\* Disconnected, wrong number, changed phone number, or no answer.

\*\* Answering machine, voice mail, or busy signal.

\*\*\* Answered for some centers in multi-site agency but not all.

\*\*\*\* Some centers coded as “respondent not available” did not receive the maximum number of eight interview attempts if the target number of interviews had been reached and the interview was no longer needed.

the director prepare for the telephone interview. Centers were informed that they would receive a copy of the latest version of First 5’s Kit for New Parents as an incentive for completing the interview.

Field Research Corporation, Inc. (FRC), a professional public opinion research firm, conducted the interviews using computer-assisted telephone interviewing (CATI). During the CATI process, the interviewer reads the survey question from a computer screen and enters the survey data directly into the computer. This promotes uniformity of interview technique as well as accuracy and consistency during data input. FRC completed 1,826 interviews between April 25 and June 14, 2005. Interviews with Head Start centers that were closed during this time were attempted again during fall 2005. Ninety-five additional interviews were completed with Head

Start centers,<sup>2</sup> bringing the total number of completed interviews to 1,921.

Licensed centers were contacted during the work day, and whenever directors requested it, they were called back at an appointed time to complete the interview, sometimes in the evening or during the weekend. Interviews took an average of 20 minutes to complete. FRC made up to eight attempts to complete an interview with each center.

### Survey Completion and Response Rate

FRC exceeded the study’s target number of 1,800 interviews, dialing 4,809 centers to complete 1,921 interviews. Targets in certain regions were exceeded when we interviewed the Head Start centers that had been closed during the

2 Sixteen Head Start centers that were closed during the original field period completed interviews during the nine-county study (9/12/05-10/14/05) and 79 Head Start centers that were closed during the original field period completed interviews between November 14 and December 9, 2005.

original study period.

Of the 4,809 center contacts, 10.0 percent were determined to be ineligible, either because they were out of business or were presumed to be. (See Table 2.3.) Because of unanticipated delays in implementing the survey after our sample was drawn, the sample was over one year old when the survey began. For that reason, we assume that many of the centers with “unresolved phone numbers” were actually out of business. Among those eligible, 44.4 percent completed the survey.

## Data Analysis

Data analysis sought to address the goals of the study as outlined in the introduction to this report. All analyses were performed using SPSS (Statistical Package for the Social Sciences) 12.0 and StataSE 8, the latter software designed for complex sample surveys and weighted data.

First, we compiled statistics that described characteristics of the workforce, including the age, ethnicity, language(s) spoken, tenure and wages of teachers, assistant teachers and directors employed in centers serving infants and/or preschoolers. Second, we conducted analyses of the number of children of various age ranges served in centers, as well as the numbers of children with special needs and children receiving public child care subsidies. Third, we examined teacher, assistant teacher and director educational backgrounds, making comparisons among the educational levels and demographic characteristics of center staff. Fourth, we examined whether teachers had completed non-credit or credit-bearing training to care for children

with special needs and/or English language learners.

To more closely examine differences among regions, between centers with and without public subsidies, and between centers serving and not serving infants, we conducted inferential statistical tests (e.g., chi-square, t-test, ANOVA). All significant results are reported, including group differences at a *p* value of .05 or better.

We performed regional comparisons twice – first by including Los Angeles County center staff as part of the Southern California region, and then by excluding them. We report results for both analyses wherever differences were found using these two sub-samples. Wherever results did not differ, we present regional results for Southern California including Los Angeles County center staff. For a more detailed view of teachers, assistant teachers and directors employed in infant/preschool child care centers in Los Angeles County, see the Los Angeles County report at the First 5 California web site, <http://www.ccfcc.ca.gov>.

# Findings

The findings described in this report are based on interviews with 1,921 directors of California child care centers that are licensed to care for children from birth to 23 months (infants) and/or from two to five years old and not yet in kindergarten (preschoolers). Some centers in the sample also are licensed to serve school-age children, but centers licensed for school-age children exclusively were not included in the sample.<sup>3</sup> Each interview represents only one center, although approximately 15 percent of centers included in the sample were part of multi-site programs.<sup>4</sup> Centers were randomly selected from four regions of the state: Northern California, the Bay Area, Central California, and Southern California. All data reported here were weighted to reflect the proportion of centers licensed to serve infants and/or preschoolers in various regions of California.

The following profile, therefore, is based on these weighted estimates of the population of California centers licensed to serve infants and/or preschoolers. Because some of these centers also enroll older children, we included the numbers of these school-age children enrolled in our profile of centers. Findings related to the demographic and professional characteristics of teachers and assistants, however, refer only to those staff working with infants and/or preschoolers.

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3 This study also did not include centers exempt from licensing. Most license-exempt centers in California are part-day programs operated by local Park and Recreation Departments and/or serving only school-age children.

4 Separate interviews were conducted with directors for each site of multi-site programs that were selected for the study and agreed to participate. Thus, in some cases, directors in multi-site programs completed multiple interviews, one for each site included in the study. Some directors, however, refused to complete more than one interview, as reported below in our discussion of the sample response rate. There were no significant regional differences among centers with respect to multi-site status.

For the purpose of this study, we defined teachers as “those who are responsible for a group of children or a classroom, and who may or may not have administrative duties.” Assistant teachers were defined as “those who work under the supervision of a teacher and who do not independently supervise a classroom or group of children.” Directors were defined as persons on-site “who have administrative and executive-level responsibilities for running the center, but limited or no regular teaching responsibilities.” Teacher-directors (staff who served as both teachers and directors at their centers) were included as teachers if they worked directly with children the entire time the center was open, or for 15 or more hours per week. If they worked directly with children for less than 15 hours per week, they were categorized as directors. Educational and demographic information about directors refers to those who work on-site at a given center.

Because regulations governing staff qualifications are more stringent for programs holding a Head Start or California Department of Education (CDE) contract than for those without contracts, one cannot assume that teachers, assistant teachers or directors across programs, even if they have the same job title, meet equivalent educational or professional criteria. In addition, some programs may set standards for staff qualifications that exceed those required by licensing or as a condition of a contract.

Significant differences are reported at a *p* level of 0.05 or less. Figures and tables included in this chapter summarize data referred to in the text. Standard errors for all findings represented in this chapter, as well as additional data not discussed

in the text, can be found in the Appendix Tables. After reporting statewide findings, we report statistical differences among centers operating in various regions of the state. For selected variables, we also report statistical differences between centers enrolling subsidized children – either through Head Start, a contract with the Child Development Division of the California Department of Education (CDE), or vouchers – and centers not enrolling subsidized children. Less than one percent of centers enrolled infants exclusively, preventing us from distinguishing between those enrolling only infants and those enrolling preschoolers. For selected variables, however, we do report statistical differences between centers not enrolling children under two and those enrolling a mix of children younger and older than two.

## Who are the teachers, assistant teachers and directors in California's licensed child care centers?

*In California, a teacher in a child care center licensed to serve infants and/or preschoolers is slightly more likely to be White, Non Hispanic than she is to be a woman of color. Assistant teachers are more diverse, and more closely reflect the ethnic distribution of children ages birth to five in California, than teachers or directors. Still, teachers are more ethnically diverse than K-12 teachers. Compared to women in California, teachers and assistant teachers are more likely to be under age 30 and less likely to be over 50 years of age. Slightly more than one-third of teachers, nearly one-half of assistant teachers, and one-quarter of directors are able to speak a language other than English fluently, most typically Spanish.*

*These demographic profiles vary, however, among regions of the state and by such center characteristics as age group of children served and relationship to public subsidy. For example, as with the population as a whole, center teaching staff in Northern California are more likely to be White, Non-Hispanic than their counterparts in Central and Southern California. Centers holding contracts with Head Start or the California Department of Education are more likely to employ teachers who speak a language other than English than are centers receiving public dollars through vouchers, or those receiving no public dollars.*

*The typical teacher and assistant teacher have worked in their present jobs for less than five years, while the typical director has been on the job for more than five years. The highest-paid teachers with a BA earn, on average, between \$14.03 and \$18.62 an hour, depending on the region of the state in which they reside. The highest-paid assistants can expect to earn \$9.28 an hour, on average, if they work in a center receiving public dollars through a voucher, and \$11.21 an hour in a center holding a contract with Head Start or CDE.*

### Age

Directors were asked to report the age range of their teachers and assistant teachers; we did not collect data on the age of directors for this study. Compared to women<sup>5</sup> in California overall (26.9 percent), teachers (33.0 percent) and assistant teachers (48.7 percent) were more likely to be younger than 30. (See Figure 3.1.)

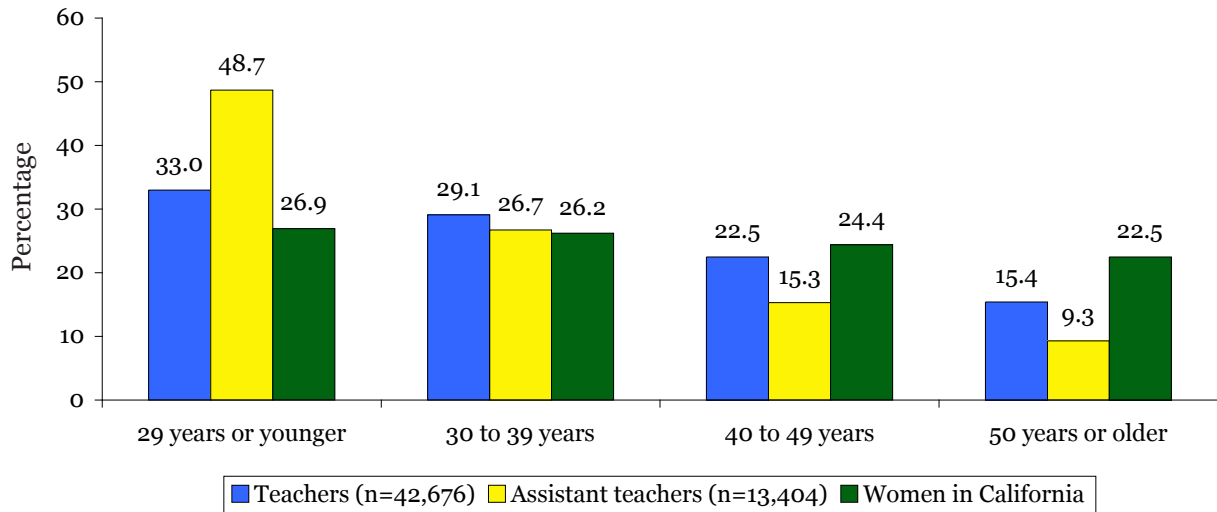
The age distribution of teachers and assistant teachers differed by whether or not centers enrolled infants as well as preschoolers. (See Figure 3.2.) Centers enrolling infants employed a greater proportion of teachers and assistant teachers under 30 years old than centers that did not serve infants. Only 26.0 percent of teachers in centers without infants were under 30, compared to 44.3 percent of teachers in centers serving infants as well as preschoolers.

The age distribution of teachers and assistant teachers also varied depending on centers' relationship to public subsidy,

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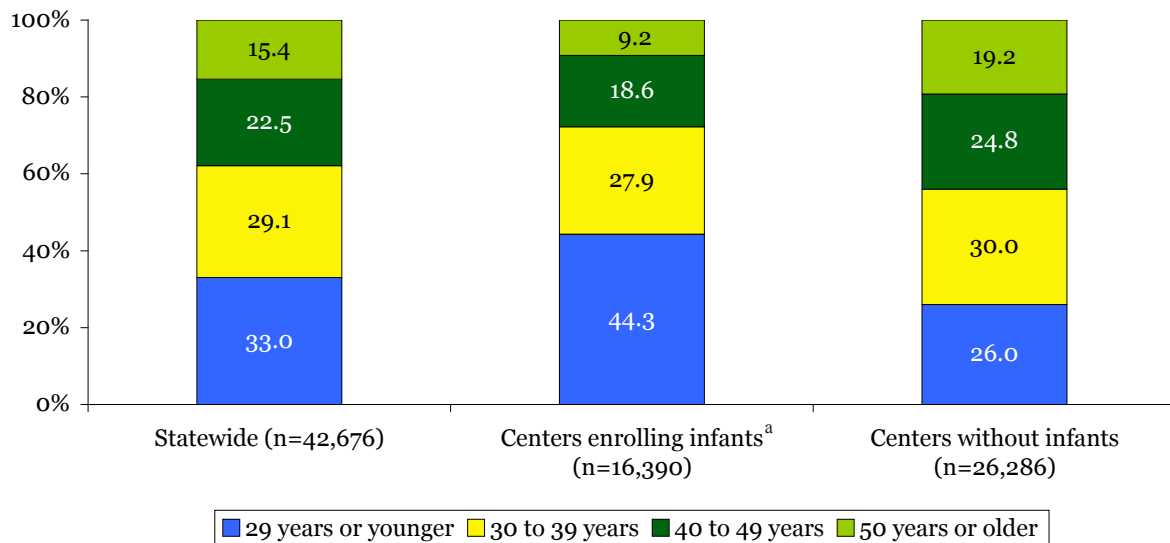
<sup>5</sup> Previous research has established that the early care and education workforce is predominantly female. In the interest of survey length, therefore, directors were not asked about the gender of teaching staff.

Figure 3.1. *Estimated Age Distribution of Teachers and Assistant Teachers Compared to Women in California: Statewide*



Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Figure 3.2. *Estimated Age Range of Teachers: Statewide, and By Ages of Children Served*



Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

<sup>a</sup> Most of these centers also enroll older children,



as shown in Figure 3.3. Centers receiving public dollars through vouchers reported a higher proportion of teachers and assistant teachers under 30 years old, and a lower proportion of teachers and assistant teachers over 50 years old, than did either centers holding a contract with Head Start or CDE, or centers receiving no public dollars.

The age distribution of teachers and assistant teachers also varied across regions of the state. (See Figure 3.4.) Bay Area teachers were more likely to be 50 years or older than were teachers in other regions. Assistant teachers in Central and Northern California were more likely to be under 30 years of age than were assistant teachers in other parts of the state. Assistant teachers in Central California were less likely to be over 50 years old than their counterparts in the rest of the state.

### ***Ethnic Background***

We found that slightly more than one-half of child care teachers in California (53.0 percent) were White, Non-Hispanic. (See Figure 3.5.) Slightly less than one-half of teachers were people of color (47.0 percent); Latinas were the second largest group (26.9 percent). Among assistant teachers, Latinas represented a plurality (42.0 percent), followed by White, Non-Hispanics. Over three-fifths of directors (62.6 percent) were White, Non-Hispanic, while 15.9 percent were Latina. As shown in Table 3.1, across all job titles, African Americans and Asian/Pacific Islanders were the next largest groups, followed by those identifying themselves as Multiethnic, American Indian/Alaskan Native, or of some other ethnicity.

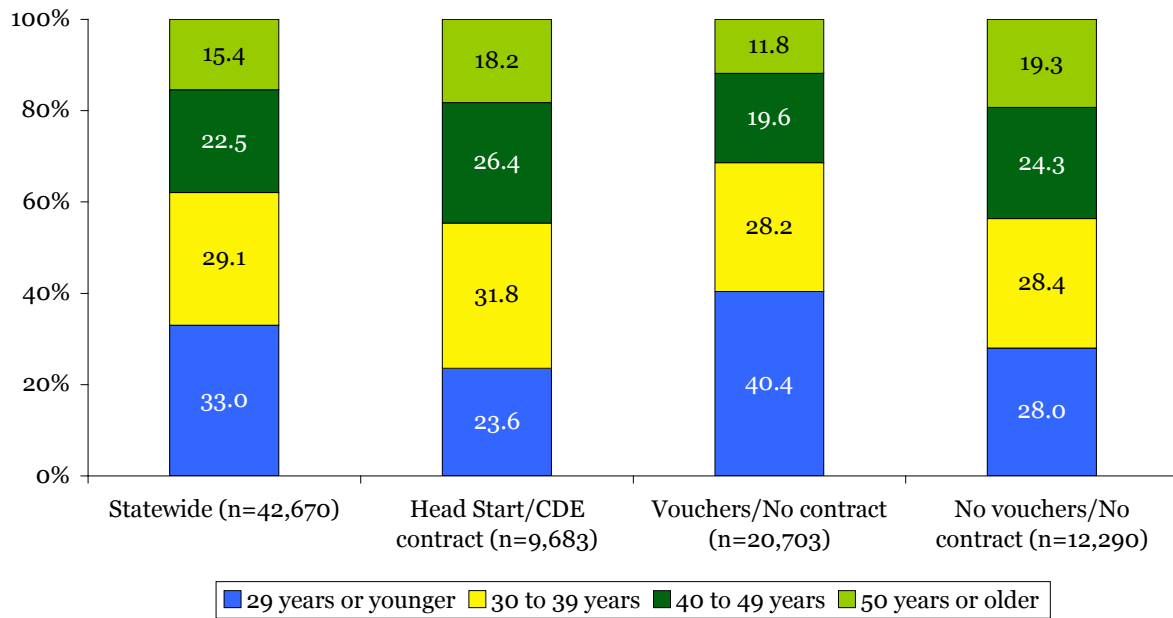
Table 3.1 shows the estimated ethnic distribution of teachers, assistant

teachers, and directors across the state, as well as by region. Across job titles, directors were the least ethnically diverse group, and assistant teachers were the most diverse. As shown in Figure 3.5, teachers and directors in California child care centers enrolling infants and/or preschoolers were more likely to be White, Non-Hispanic, and less likely to be Latina, that were other female adults in the state. In contrast, assistant teachers were more likely to be Latina, and less likely to be White, Non-Hispanic, than were other female adults in the state. Compared to the state's adult female population, African Americans were proportionally represented, and Asians/Pacific Islanders were less represented, among teachers, teacher assistants and directors in the center workforce.

Assistant teachers were more diverse, and more closely reflected the ethnic distribution of children ages birth to five in California, than teachers or directors in centers. Child care center teachers, however, were still much more diverse than teachers in Grades K-12 in California public schools. (See Figure 3.6.) Nearly three-quarters of public school K-12 teachers (73.5 percent) were White, Non-Hispanic, compared to 53.0 percent of teachers in child care centers, and 30.0 percent of children ages birth to five (California Department of Education, 2004). Child care center teachers were more likely to be Latina (26.9 percent) than were K-12 teachers (14.2 percent), but were less likely to be Latina than children ages birth to five (49.9 percent). The percentage of Latina assistant teachers (42.0) more closely reflected the proportion of Latino children ages birth to five in California.

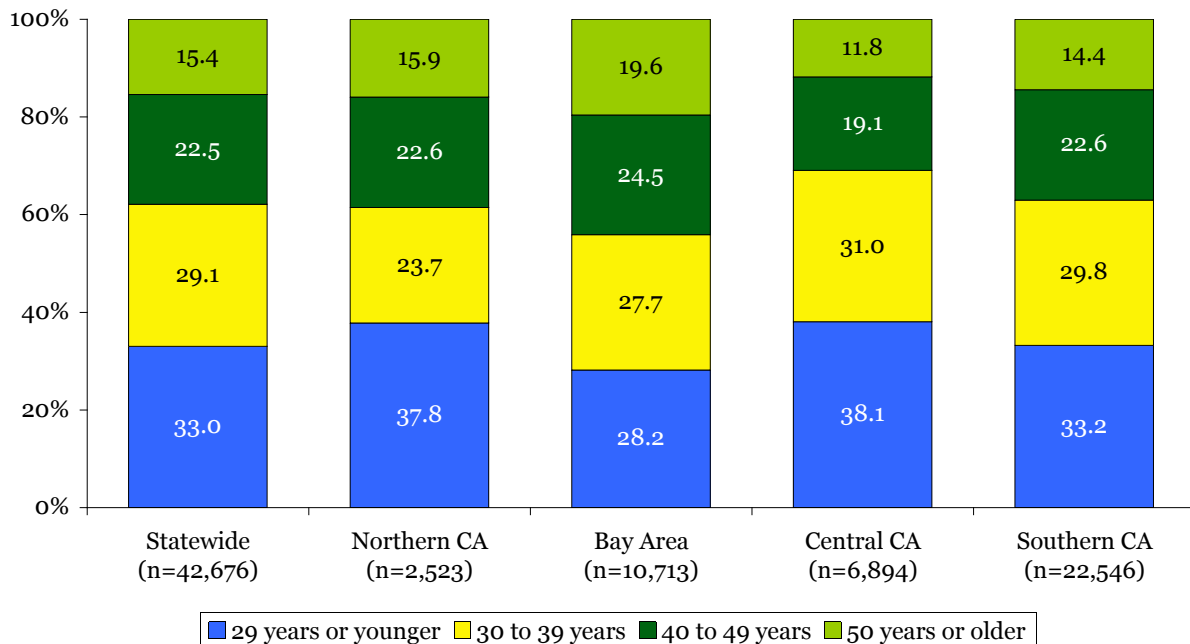
Child care center teachers were more

Figure 3.3. *Estimated Age Range of Teachers: Statewide, and By Centers' Relationship to Public Subsidy*



Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Figure 3.4. *Estimated Age Range of Teachers: Statewide and by Region*



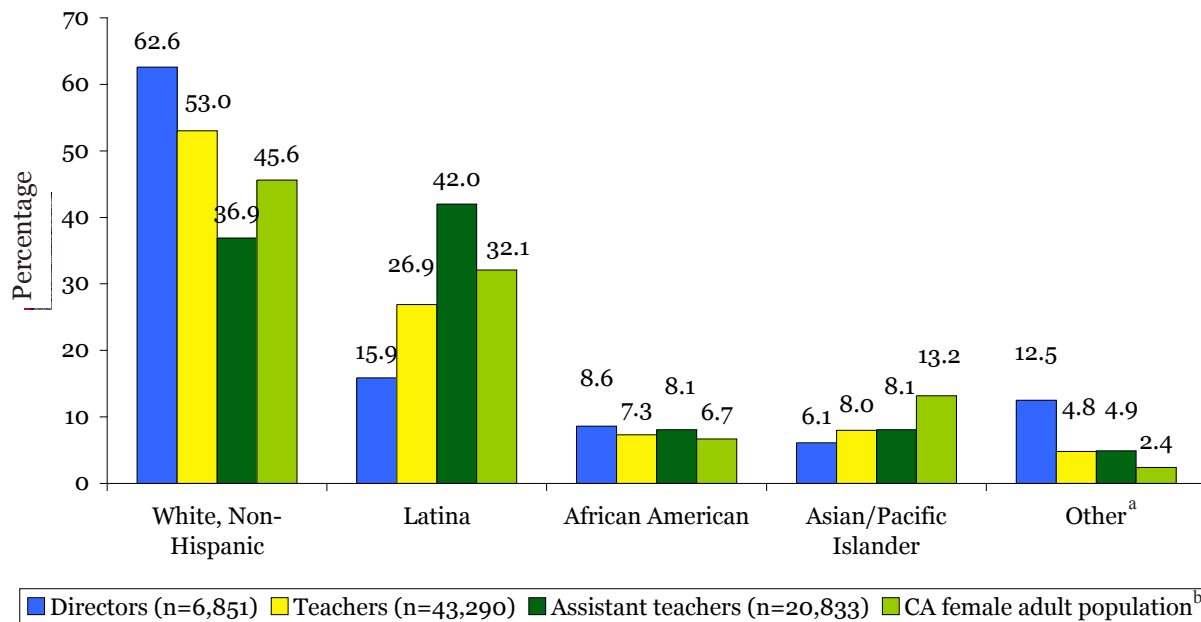
Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Table 3.1. *Estimated Ethnicity of Teachers, Assistant Teachers and Directors: Statewide and By Region*

		Estimated percentage					
		Statewide	Northern CA	Bay Area	Central CA	Southern CA w/ Los Angeles	Southern CA w/o Los Angeles
<b>Teachers</b>	White, Non-Hispanic	53.0	83.1	52.1	54.8	49.5	56.6
	Latina	26.9	10.4	17.2	30.3	32.1	29.9
	African American	7.3	0.8	7.9	6.1	8.0	5.1
	Asian/Pacific Islander	8.0	1.5	16.6	4.9	5.7	5.2
	American Indian or Alaskan Native	0.3	1.3	0.5	0.3	0.1	0.3
	Multiethnic	2.2	2.3	2.3	2.2	2.1	1.2
	Other	2.3	0.5	3.4	1.4	2.2	1.7
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of teachers</i>	43,290	2,507	10,757	7,238	22,788	12,412
<b>Assistant teachers</b>	White, Non-Hispanic	36.9	72.8	41.0	35.4	31.8	40.5
	Latina	42.0	19.5	26.4	49.6	47.4	42.0
	African American	8.1	1.1	8.1	6.1	9.5	6.6
	Asian/Pacific Islander	8.1	1.8	18.9	4.6	6.5	6.4
	American Indian or Alaskan Native	0.4	2.3	0.1	0.3	0.3	0.4
	Multiethnic	1.6	2.0	1.4	1.4	1.6	1.2
	Other	2.9	0.5	4.1	2.6	2.9	2.9
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of assistant teachers</i>	20,833	1,424	3,879	3,491	12,039	5,806
<b>Directors</b>	White, Non-Hispanic	62.6	80.4	65.0	60.2	60.7	68.3
	Latina	15.9	9.0	7.1	23.6	17.5	17
	African American	8.6	1.6	8.3	9.3	9.2	4.8
	Asian/Pacific Islander	6.1	0.5	13.6	1.9	5.1	3.8
	American Indian or Alaskan Native	0.7	2.6	0.6	0.8	0.4	0.0
	Multiethnic	3.8	4.2	2.7	3.7	4.2	3.8
	Other	2.3	1.6	2.7	0.5	2.9	2.2
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of directors</i>	6,852	365	1,433	1,192	3,862	2,135

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Figure 3.5. *Estimated Ethnic Distribution of Teachers, Assistant Teachers and Directors Compared to the California Female Adult Population: Statewide*

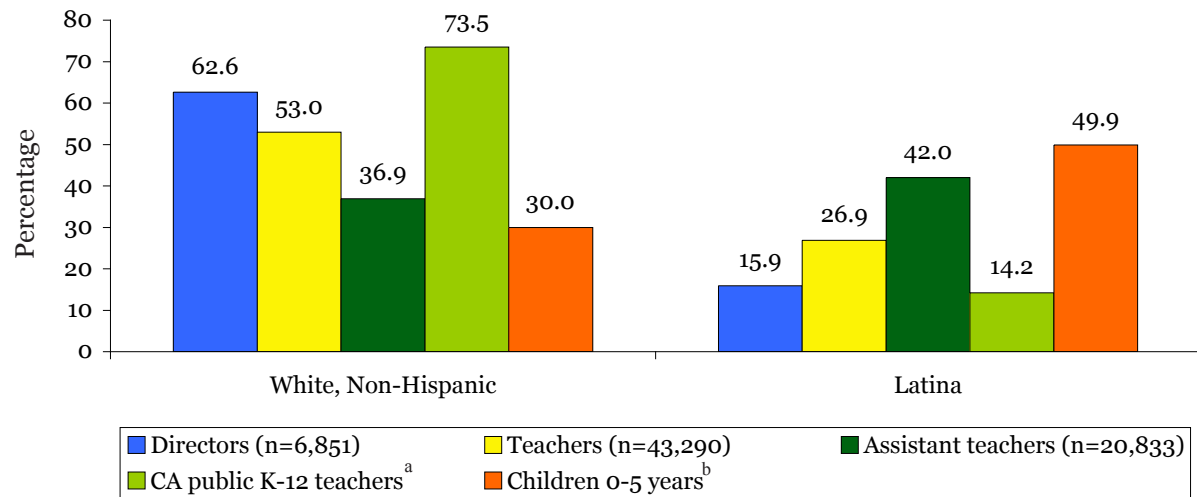


Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

<sup>a</sup>Other includes American Indian or Alaskan Native and Multiethnic groups.

<sup>b</sup>US Census Bureau (2004).

Figure 3.6. *Estimated Ethnic Distribution of Teachers and Assistant Teachers, Compared to California Public K-12 Teachers and Children 0-5 Years: Statewide*



Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

<sup>a</sup>California Department of Education (2004).

<sup>b</sup>California Department of Finance (2004a).

likely than K-12 teachers to be African American (7.3 percent vs. 4.7 percent), Asian/Pacific Islander (8.0 percent vs. 5.9 percent) or self-identified as Multiethnic or Other (7.6 percent vs. 1.6 percent). Child care center teachers were slightly more likely to be African American or to identify as Multiethnic or Other, and were somewhat less likely to be Asian/Pacific Islander, than were children ages birth to five (African American children, 6.1 percent; Other, 4.5 percent; and Asian/Pacific Islander, 9.5 percent).

The ethnic composition of staff did not differ by ages of children enrolled in centers, but it did differ depending on whether centers held a Head Start or CDE contract, received vouchers to cover the cost of subsidized children, or received no public dollars. As shown in Table 3.2, contracted programs employed the most diverse pool of teachers, assistant teachers, and directors, followed by programs receiving vouchers to cover the costs of subsidized children. Programs receiving no public funds were least likely to employ teachers, assistant teachers or directors of color.

In addition to looking at the percentage of teachers of various ethnicities among types of programs, it is helpful to consider the percentage of centers of a particular type that employ at least one teacher from a particular ethnic group. Depending on their relationship to public subsidy, centers may vary not only in the percentage of their teachers who are Latina, but also in regard to whether they employ at least one Latina teacher. We found that a similar proportion of contracted programs (65.9 percent) and voucher programs (65.5 percent) employed at least one Latina teacher, compared to programs receiving no public

dollars (45.3 percent).

The ethnic composition of center staff differed significantly among regions of the state. (See Table 3.1.) To some extent, these regional differences reflected differences in ethnicity for the adult female population as a whole. Northern California, for example, had a greater proportion of White, Non-Hispanics, and Central and Southern California had a greater proportion of Latinas, in their overall female population and in their teacher and assistant teacher populations than did other regions of the state. More than four-fifths of teachers (83.1 percent) and 72.8 percent of assistant teachers in Northern California were White, Non-Hispanic, but about one-half of teachers in Central and Southern California (Central, 54.8 percent; Southern, 49.5 percent), and about one-third of assistant teachers in Central and Southern California (Central, 35.4 percent; Southern, 31.8 percent), were White, Non-Hispanic. More than one-third of teachers and one-half of assistants in Central California were Latina, nearly double the percentage of Latina teachers and assistants in the Bay Area, and nearly three times the percentage of Latina teachers and assistants in Northern California. Ethnic differences among directors also reflected regional patterns.

### ***Linguistic Background***

We also found that the population of children served by California's licensed centers was characterized by great linguistic diversity. The language backgrounds of young children is based on 2004-05 data from the California Department of Education (CDE), which reports that slightly more than one-third of kindergarteners attending California public schools in 2004-2005 spoke a

Table 3.2. *Estimated Ethnicity of Teachers, Assistant Teachers and Directors, By Centers' Relationship to Public Subsidy*

		Estimated percentage		
		Head Start/CDE contract	Vouchers/No contract	No vouchers/No contract
<b>Teachers</b>	White, Non-Hispanic	33.9	54.3	66.2
	Latina	40.2	26.1	17.3
	African American	11.2	7.7	3.4
	Asian/Pacific Islander	10.3	7.4	7.3
	American Indian or Alaskan Native	0.6	0.2	0.3
	Multiethnic	2.4	2.0	2.4
	Other	1.3	2.3	3.0
	<i>Total</i>	100.0	100.0	100.0
	<i>Number of centers</i>	10,028	20,990	12,272
<b>Assistant teachers</b>	White, Non-Hispanic	24.1	48.1	53.3
	Latina	54.2	29.9	28.4
	African American	10.0	7.4	4.1
	Asian/Pacific Islander	8.1	7.7	8.9
	American Indian or Alaskan Native	0.6	0.2	0.1
	Multiethnic	1.1	2.3	1.8
	Other	1.9	4.3	3.4
	<i>Total</i>	100.0	100.0	100.0
	<i>Number of centers</i>	10,613	6,132	4,088
<b>Directors</b>	White, Non-Hispanic	49.5	63.7	75.0
	Latina	26.5	14.6	8.8
	African American	13.7	8.8	3.4
	Asian/Pacific Islander	7.0	5.2	6.6
	American Indian or Alaskan Native	0.7	0.8	0.3
	Multiethnic	3.9	4.3	3.0
	Other	1.3	2.5	3.1
	<i>Total</i>	100.0	100.0	100.0
	<i>Number of centers</i>	1,820	3,141	1,891

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

language other than English and were classified as English Learners. Of the 56 different languages spoken by English Learners in California's public kindergarten classrooms, Table 3.3 lists the 15 most commonly spoken. Directors were asked whether they or any of their teachers or assistant teachers could speak fluently with children and families in a language other than English. If they answered affirmatively, they were asked which language(s) they or their teaching staff would be able to speak fluently with children and families if necessary. Our description of center staff fluency in these other languages is based entirely on directors' assessments. Note that the directors' reports do not permit us to assess whether those who spoke a language other than English also spoke English fluently.

Table 3.3. *California Children in Public Kindergarten, 2004-2005: 15 Most Commonly Spoken Languages of English Language Learners*

Language	Percentage
Spanish	84.4
Vietnamese	2.9
Cantonese	1.6
Filipino (Pilipino or Tagalog)	1.3
Hmong	1.0
Korean	1.0
Mandarin (Putonghua)	0.9
Punjabi	0.7
Arabic	0.6
Armenian	0.5
Russian	0.5
Khmer (Cambodian)	0.4
Japanese	0.4
Farsi (Persian)	0.4
Hindi	0.3
N	170,559

Source: California Department of Education (2006).

As described below, there was a great deal of language diversity among center staff. Directors emerged as the least, and assistant teachers as the most, linguistically diverse group. About one-quarter (25.2 percent) of directors, 36.5 percent of teachers, and 49.3 percent of assistants had the capacity to communicate fluently with children and families in a language other than English. Not all centers, however, employed a director, teacher or assistant teacher with this capacity. Most centers (70.9 percent) did not employ a director who could communicate fluently in a language other than English with children and families, but most employed at least one teacher (71.6 percent) or assistant teacher (66.1 percent) who could. When centers employed at least one teacher or assistant with this language capacity, it was likely that the majority of their teachers (53.8 percent, SE=0.9) and assistants (70.7 percent, SE= 1.1) were able to communicate fluently in a language other than English.

Among those who spoke languages other than English fluently with children and families, the most commonly spoken language was Spanish:

- Among directors who spoke a language other than English fluently, 70.1 percent spoke Spanish and 6.3 percent spoke Chinese.
- Among teachers who spoke a language other than English fluently, 86.3 percent spoke Spanish and 10.1 percent spoke Chinese.
- Among assistant teachers who spoke a language other than English fluently, 80.3 percent spoke Spanish and 4.8 percent spoke Chinese.

The language backgrounds of teachers



and assistant teachers differed by region, as it does for the female adult population across the state. (See Table 3.4.) Centers in Northern California were less likely, and centers in Southern California were more likely, than centers in all other regions to employ at least one teacher who spoke a language other than English. Centers in Northern California were also less likely than centers in other regions of the state to employ at least one assistant teacher who spoke a language other than English fluently. As shown in Table 3.5, among centers that employed at least one teacher or assistant teacher who spoke a language other than English fluently, those in Northern California employed the lowest percentage of teachers with such language capacity.

The linguistic background of teachers, assistant teachers, and directors also varied among centers serving particular groups of children. As shown in Tables 3.6 and 3.7, centers serving infants and preschoolers were significantly more likely than centers that did not serve infants to employ at least one teacher who spoke a language other than English fluently. Among centers that employed at least one teacher able to communicate in a language other than or in addition to English, centers serving infants employed significantly fewer such teachers. There were no significant language differences among directors and assistants in centers serving children of different ages.

Centers holding contracts with Head Start or CDE were more likely than centers receiving vouchers or receiving no public funds to employ at least one director, one teacher and one assistant who spoke a language other than English fluently. Among centers that employed at least one director or teacher with the

capacity to communicate in a language other than English, contracted centers employed the greatest percentage of such teachers and directors.

### ***Turnover and Tenure***

Center staff stability has been linked to overall program quality, the ability of a program to improve its quality, and children's social and verbal development (Whitebook, Howes & Phillips, 1998; Whitebook & Sakai, 2004). Turnover rates provide one important index of center workforce stability; namely, how much change in staffing a center has undergone in the previous year. Information on tenure offers a longer-term perspective on the level of staff stability over time within centers.

In order to determine rates of turnover, we asked directors to report the number of teachers, assistant teachers and directors who had left or stopped working at their centers for any reason, including leaves of absence, over the last 12 months.<sup>6</sup> On average, 22.0 percent of teachers, and 26.4 percent of assistant teachers, were reported to have done so.

The range of turnover rates varied considerably among centers. About one-half of centers reported no turnover in the previous 12 months among teachers (47.6 percent) or assistant teachers (57.9 percent), whereas one-quarter of centers reported turnover rates greater than 32 percent among teachers, and greater than 40 percent among assistant teachers. Ten percent of centers reported that more

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<sup>6</sup> Turnover discussed in this report refers to job turnover, the number of staff who leave employment at their centers over a fixed period of time. Information about position turnover (i.e., changes of role while maintaining employment at the same center) and occupational turnover (i.e., departure from the child care field) was not collected in this study.

**Table 3.4. Estimated Percentage of Centers Employing at Least One Teacher, Assistant Teacher or Director with the Capacity to Communicate Fluently in a Language Other Than English: Statewide and By Region**

	Estimated percentage (SE)				
	Statewide	Northern CA	Bay Area	Central CA	Southern CA
Teachers*	71.6 (1.1)	34.4 (2.6)	71.4 (2.2)	71.3 (2.1)	78.1 (1.6)
<i>Number of centers</i>	7,660	645	1,816	1,405	3,794
Assistant teachers**	66.1 (1.4)	38.9 (3.2)	65.9 (2.9)	63.9 (2.7)	71.4 (2.1)
<i>Number of centers</i>	5,384	452	1,148	1,033	2,751
Directors	29.1 (1.4)	23.3 (3.2)	31.1 (2.8)	28.3 (2.6)	29.4 (2.1)
<i>Number of centers</i>	5,592	317	1,161	982	3,132

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\* $p < .05$ , Northern CA < all other regions; Southern CA > all other regions.

\*\* $p < .05$ , Northern CA < all other regions.

**Table 3.5. Estimated Mean Percentage of Teachers and Assistant Teachers with the Capacity to Communicate Fluently in a Language Other Than English Employed, If Center Employed At Least One Such Staff Person: Statewide and By Region**

	Estimated mean percentage per center (SE)				
	Statewide	Northern CA	Bay Area	Central CA	Southern CA
Teachers*	53.8 (0.9)	44.9 (2.5)	51.4 (1.6)	52.4 (1.7)	56.0 (1.4)
<i>Number of centers</i>	5,482	222	1,297	1,001	2,962
Assistant teachers**	70.7 (1.1)	61.1 (3.2)	69.3 (2.1)	74.1 (1.9)	70.9 (1.7)
<i>Number of centers</i>	3,556	176	757	660	1,963

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\* $p < .05$ , Northern CA < Southern CA.

\*\* $p < .05$ , Northern CA < Central CA, Southern CA.

**Table 3.6. Estimated Percentage of Centers Employing at Least One Teacher, Assistant Teacher or Director with the Capacity to Communicate Fluently in a Language Other Than English: Statewide, and By Ages of Children Served and Relationship to Public Subsidy**

	Estimated percentage (SE)					
	Statewide	Centers enrolling infants <sup>a</sup>	Centers without infants	Head Start/CDE contract	Vouchers/No contract	No vouchers/No contract
Teachers*, **	71.6 (1.1)	82.2 (1.8)	68.0 (1.3)	77.8 (1.7)	74.4 (1.6)	61.0 (2.3)
<i>Number of centers</i>	7,660	1,920	5,740	2,288	3,172	2,200
Assistant teachers***	66.1 (1.4)	70.1 (2.6)	64.5 (1.6)	86.1 (1.4)	56.0 (2.4)	53.1 (3.1)
<i>Number of centers</i>	5,384	1,461	3,923	1,928	2,124	1,333
Directors	29.1 (1.4)	35.6 (8.7)	26.3 (1.6)	40.1 (2.7)	26.7 (2.1)	21.9 (2.4)
<i>Number of centers</i>	5,592	1,720	3,872	1,560	2,514	1,517

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

<sup>a</sup>Most of these centers also enroll older children,

\* $p < .05$ , Centers enrolling infant > Centers without infants

\*\* $p < .05$ , Head Start/CDE contract > vouchers/no contract, no vouchers/no contract; vouchers/no contract > no vouchers/no contract.

\*\*\*  $p < .05$ . Head Start/CDE contract > vouchers/no contract, no vouchers/no contract.

**Table 3.7. Estimated Mean Percentage of Teachers, Assistant Teachers and Directors with the Capacity to Communicate Fluently in a Language Other Than English in Centers Employing At Least One Such Staff Person: Statewide, By Ages of Children Served and Relationship to Public Subsidy**

	Estimated mean percentage per center (SE)					
	Statewide	Centers enrolling infants <sup>a</sup>	Centers without infants	Head Start/CDE contract	Vouchers/No contract	No vouchers/No contract
Teachers*, **	53.8 (0.9)	49.7 (1.8)	55.5 (1.1)	68.5 (1.5)	45.5 (1.3)	48.9 (1.9)
<i>Number of centers</i>	5,482	1,579	3,903	1,780	2,360	1,342
Assistant teachers	70.7 (1.1)	66.1 (2.1)	72.5 (1.3)	74.1 (1.5)	67.4 (1.9)	68.0 (2.8)
<i>Number of centers</i>	3,556	1,024	2,532	1,660	1,189	708
Directors**	88.4 (1.2)	84.9 (2.2)	90.4 (1.4)	93.8 (1.4)	85.1 (2.1)	84.6 (3.0)
<i>Number of centers</i>	1,629	612	1,017	626	671	332

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

<sup>a</sup>Most of these centers also enroll older children,

\* $p < .05$ , Centers enrolling infants < centers without infants.

\*\* $p < .05$ , Head Start/CDE contract > vouchers/no contract, no vouchers/no contract.

than 58 percent of teachers and more than 80 percent of assistant teachers had left or stopped working at their centers during the previous 12 months.

Director turnover (17.9 percent) was slightly lower than turnover among teaching staff. The overwhelming majority of centers (83.2 percent) reported no director turnover in the previous 12 months.

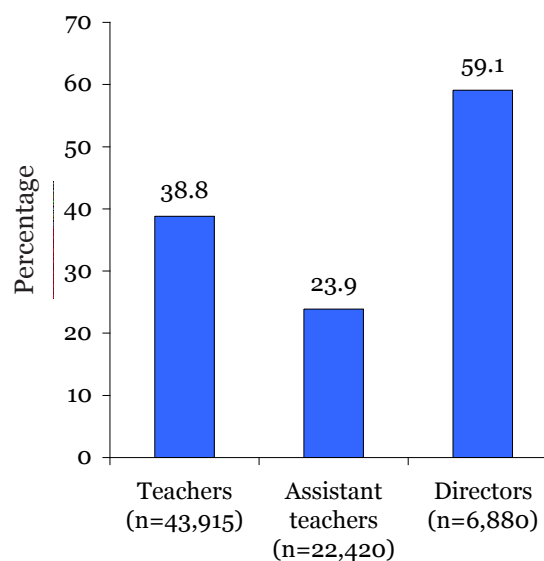
As shown in Table 3.8, turnover varied little across regions for all job titles. As shown in Table 3.9, centers serving infants reported higher levels of teacher turnover than centers that did not serve infants. Centers receiving no public dollars reported lower rates of teacher turnover than centers holding a contract with Head Start or CDE, or centers receiving public subsidy in the form of vouchers. (See Table 3.9.)

To measure rates of tenure, we asked directors to report how many teachers, assistant teachers and directors at their centers had been employed for less than one year, from one to five years, or more than five years. (See Table 3.10.)

Among various positions within centers, directors were the most stable group of employees, followed by teachers and assistant teachers. (See Figure 3.7.) Approximately three-fifths of directors (59.1 percent) had been employed for more than five years at their centers, compared to 38.8 percent of teachers and 23.9 percent of assistant teachers. Only 30.8 percent of centers reported employing at least one assistant teacher for more than five years.

Tenure for teachers, assistant teachers and directors also varied regionally and by center characteristics. As shown in

**Figure 3.7. Estimate Percentage of Teachers, Assistant Teachers and Directors Who Have Been Employed at Their Centers for More than Five Years: Statewide**



Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Table 3.10, centers in the Bay Area and Southern California reported longer average rates of tenure for teachers (as measured by the percentage of teachers employed at the center for more than five years) than centers in other regions of the state. When Los Angeles data were excluded from Southern California, however, tenure rates dropped somewhat for that area. Assistant teachers followed a similar pattern. By contrast, Northern California centers reported the longest average tenure for directors.

Staffing among directors, teachers and assistant teachers was less stable, as measured by both turnover and tenure, in centers serving infants and preschoolers than in centers not serving infants. Turnover and tenure also differed among centers with varying relationships to

Table 3.8. *Estimated Mean Percentage of Annual Job Turnover Among Teachers, Assistant Teachers and Directors: Statewide and By Region*

	Estimated mean percentage (SE)					
	Statewide	Northern CA	Bay Area	Central CA	Southern CA w/ Los Angeles	Southern CA w/o Los Angeles
Teachers*	22.0 (0.9)	20.8 (1.8)	18.1 (1.6)	22.1 (1.8)	24.0 (1.6)	24.9 (1.8)
<i>Number of centers</i>	7,722	647	1,837	1,412	3,826	2,065
Assistant teachers	26.4 (1.5)	29.7 (3.1)	22.3 (2.4)	32.1 (3.0)	25.4 (2.5)	27.5 (2.6)
<i>Number of centers</i>	5,534	450	1,208	1,068	2,808	1,492
Directors	17.9 (1.3)	18.3 (4.6)	15.0 (2.7)	21.3 (2.9)	17.9 (2.0)	20.7 (2.9)
<i>Number of centers</i>	5,590	317	1,165	985	3,123	1,696

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\*p < .05, Southern CA without Los Angeles > Bay Area.

Table 3.9. *Estimated Mean Percentage of Annual Job Turnover Among Teachers, Assistant Teachers and Directors: Statewide, By Ages of Children Served and Relationship to Public Subsidy*

	Estimated mean percentage (SE)					
	Statewide	Centers enrolling infants <sup>a</sup>	Centers without infants	Head Start/CDE contract	Vouchers/No contract	No vouchers/No contract
Teachers*	22.0 (0.9)	28.7 (2.2)	19.7 (1.0)	22.9 (1.8)	25.9 (1.5)	15.6 (1.3)
<i>Number of centers</i>	7,722	1,936	5,786	2,291	3,203	2,278
Assistant teachers	26.4 (1.5)	30.0 (2.9)	25.0 (1.8)	23.2 (1.6)	31.6 (3.2)	22.9 (2.2)
<i>Number of centers</i>	5,534	1,491	4,043	2,013	2,146	1,375
Directors	17.9 (1.3)	22.7 (3.1)	15.8 (1.5)	22.4 (3.1)	17.4 (2.1)	14.1 (2.0)
<i>Number of centers</i>	5,590	1,710	3,880	1,564	2,518	1,508

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

<sup>a</sup>Most of these centers also enroll older children.

\* p < .05 Centers enrolling infants > centers without infants. No vouchers/No contract < Head Start/CDE contract, vouchers/no contract.

Table 3.10. *Estimated Percentages of Teachers, Assistant Teachers and Directors With Different Rates of Tenure: Statewide and By Region*

		Estimated percentage					
		Statewide	Northern CA	Bay Area	Central CA	Southern CA w/ Los Angeles	Southern CA w/o Los Angeles
<b>Teachers</b>	< 1 year	16.0	18.5	12.8	18.8	16.3	17.2
	1-5 years	45.2	49.3	45.5	49.1	43.5	45.4
	>5 years	38.8	32.2	41.7	32.1	40.2	37.4
<b>Number of teachers</b>		43,915	2,534	11,152	7,393	22,836	12,597
<b>Assistant teachers</b>	< 1 year	29.0	37.0	29.2	34.3	26.5	30.8
	1-5 years	42.1	52.1	46.0	48.5	46.5	50.9
	>5 years	23.9	10.9	24.7	17.2	27.0	18.3
<b>Number of assistant teachers</b>		22,420	1,440	4,462	3,649	12,869	6,166
<b>Directors</b>	< 1 year	9.3	6.4	7.7	10.5	9.9	10.2
	1-5 years	31.6	28.1	33.6	31.6	31.1	32.7
	>5 years	59.1	65.8	58.7	57.9	59.0	57.1
<b>Number of directors</b>		6,890	363	1,442	1,201	3,874	2,140

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Table 3.11. *Estimated Percentage of Teachers, Assistant Teachers and Directors With Different Rates of Tenure, By Ages of Children Served and Centers' Relationship to Public Funding: Statewide*

		Estimated percentage					
		Statewide	Centers enrolling infants <sup>a</sup>	Centers without infants	Head Start/CDE contract	Vouchers/No contract	No vouchers/No contract
<b>Teachers</b>	< 1 year	16.0	20.0	13.4	12.7	18.3	14.6
	1-5 years	45.2	50.4	42.0	42.8	48.8	41.3
	>5 years	38.8	29.6	44.6	44.5	32.9	44.1
<b>Number of teachers</b>		43,916	16,961	26,955	10,027	21,241	12,648
<b>Assistant teachers</b>	< 1 year	29.0	31.5	27.2	23.9	37.2	31.0
	1-5 years	42.1	48.0	46.5	47.8	47.1	45.3
	>5 years	23.9	20.5	26.3	28.3	15.7	23.7
<b>Number of assistant teachers</b>		22,420	9,339	13,081	11,836	6,244	4,340
<b>Directors</b>	< 1 year	9.3	10.3	8.8	15.4	6.3	8.7
	1-5 years	31.6	38.1	28.2	41.5	30.6	23.7
	>5 years	59.1	51.6	63.0	43.1	63.1	67.6
<b>Number of directors</b>		6,880	2,361	4,519	1,811	3,165	1,904

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

<sup>a</sup> Most of these centers also enroll older children.



public subsidy; teachers and assistant teachers working in centers receiving vouchers to serve children of low-income families were less stable than those working in centers with Head Start or CDE contracts or in centers receiving no public funds. Directors of centers receiving vouchers, on the other hand, were more likely than their counterparts in other centers to have been on the job for more than five years. (See Table 3.11.)

### **Wages**

We sought to document the current compensation of teachers and assistant teachers working in California's child care centers licensed to serve infants and/or preschoolers. Because of the length of the survey, we focused our investigation on two categories of teaching staff: teachers with BA or higher degrees, and assistant teachers. We did not collect information about benefits such as health coverage or retirement plans.

We asked directors to provide hourly wages for their highest- and lowest-paid teachers with a BA or higher degree. Our intention was to document the pay rates of those teachers with the highest level of education. By asking for the lowest rate of pay, we were able to capture what is likely to be paid at a center to a new teacher with a BA or higher degree. By asking for the highest rate of pay, we were able to gain a sense of the pay ladder available to more tenured teachers with degrees. We also asked directors to provide hourly wages for their highest-paid assistant teachers. We assumed that this amount would reflect the wages of those assistants who had been at the center for some period of time, rather than new recruits.

Table 3.12 provides average highest and lowest hourly wages paid to teachers

with BA or higher degrees across the state, as well as by region. The lowest wages (\$14.08) were, on average, over \$2.00 an hour less than the highest wages (\$16.53). Across regions, centers in the Bay Area paid higher wages than other areas of the state, followed by centers in Southern, Central and Northern California, somewhat reflecting regional variations in the cost of living. The highest-paid assistant teachers in the state earned, on average, \$10.21 per hour, with those in the Bay Area earning the most, and those in Northern California earning the least.

In addition to average wages, we examined the distribution of wages among highest- and lowest-paid teachers with BA or higher degrees, and among assistant teachers. Nearly one-quarter of centers paid their highest-paid degreed teachers less than \$12.50 per hour (about \$26,000 per year), and one-quarter of centers paid assistant teachers less than \$8.00 per hour (or \$16,640 per year). Only 10 percent of centers paid their highest-paid teachers over \$24.00 per hour (or \$49,920 per year), and only 10 percent of centers paid their highest-paid assistant teachers more than \$14.00 per hour (or \$29,120).

We also examined whether centers serving different groups of children varied in their pay rates. (See Table 3.13.) We found that in centers serving both infants and preschoolers, the lowest-paid and highest-paid teachers with BA or higher degrees, as well as the assistant teachers, earned less on average than their counterparts in centers that did not serve infants. Centers receiving public dollars through vouchers paid lower wages to teachers with BA or higher degrees and assistant teachers than did programs not receiving public dollars or programs



Table 3.12. *Estimated Mean Hourly Wages Paid to Teachers with BA or Higher Degrees, and to Assistant Teachers: Statewide and By Region*

		Estimated mean hourly wage (SE)	Number of centers
<b>Teachers with BA or higher degree, highest wage*</b>	Northern CA	\$14.03 (3.9)	307
	Bay Area	\$18.62 (3.3)	1,089
	Central CA	\$14.74 (4.3)	540
	Southern CA	\$16.22 (4.5)	1,764
	Statewide	\$16.53 (2.5)	3,700
<b>Teachers with BA or higher degree, lowest wage**</b>	Northern CA	\$12.52 (3.2)	309
	Bay Area	\$15.47 (2.4)	1,123
	Central CA	\$13.51 (4.3)	543
	Southern CA	\$13.65 (0.3)	1,779
	Statewide	\$14.08 (1.7)	3,754
<b>All assistants, highest wage*</b>	Northern CA	\$9.33 (1.3)	419
	Bay Area	\$11.80 (2.0)	1,101
	Central CA	\$9.47 (1.5)	866
	Southern CA	\$9.89 (1.2)	2,372
	Statewide	\$10.21 (0.8)	4,758

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\* p < .05. Bay Area > all other regions; Southern CA > Northern CA.

\*\* p < .05. Bay area > all other regions.

Table 3.13. *Estimated Mean Hourly Wages Paid to Teachers with BA or Higher Degrees and Assistant Teachers: Statewide, By Ages of Children Served and By Centers' Relationship to Public Subsidy*

		Estimated mean hourly wage (SE)	Number of centers
<b>Teachers with BA or higher degree, highest wage*,***</b>	Head Start/CDE contract	\$19.60 (7.5)	888
	Vouchers/No contract	\$14.19 (2.5)	1,543
	No vouchers/No contract	\$17.21 (3.0)	1,269
	Centers enrolling infants <sup>a</sup>	\$15.38 (4.7)	1,007
	Centers without infants	\$16.96 (0.3)	2,693
	Statewide	\$16.53 (2.5)	3,700
<b>Teachers with BA or higher degree, lowest wage*,**</b>	Head Start/CDE contract	\$17.15 (4.7)	881
	Vouchers/No contract	\$12.14 (1.9)	1,573
	No vouchers/No contract	\$14.36 (0.2)	1,300
	Centers enrolling infants <sup>a</sup>	\$12.63 (2.5)	995
	Centers without infants	\$14.60 (2.2)	2,759
	Statewide	\$14.08 (0.2)	3,754

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

<sup>a</sup>Most of these centers also enroll older children.

\* $p < .05$ . Centers enrolling infants < centers without infants.

\*\* $p < .05$ , Head Start/CDE contract > vouchers/no contracts, no vouchers/no contract; Vouchers/No contract < Head Start/CDE contract, no vouchers/no contract.

\*\*\* $p < .05$ , Vouchers/No contract < Head Start/CDE contract, no vouchers/no contract.

**Table 3.13. Estimated Mean Hourly Wages Paid to Teachers with BA or Higher Degrees and Assistant Teachers: Statewide, By Ages of Children Served and By Centers' Relationship to Public Subsidy**

		Estimated mean hourly wage (SE)	Number of centers
<b>All assistants, highest wage*, **</b>	Head Start/CDE contract	\$11.21 (1.5)	1,477
	Vouchers/No contract	\$9.28 (1.0)	2,016
	No vouchers/No contract	\$10.49 (1.9)	1,264
	Centers enrolling infants <sup>a</sup>	\$9.67 (1.3)	1,379
	Centers without infants	\$10.42 (1.0)	3,378
	Statewide	\$10.21 (0.8)	4,757

*Note.* Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

<sup>a</sup>Most of these centers also enroll older children.

\* $p < .05$ . Centers enrolling infants < centers without infants.

\*\* $p < .05$ , Head Start/CDE contract > vouchers/no contracts, no vouchers/no contract; Vouchers/No contract < Head Start/CDE contract, no vouchers/no contract.

\*\*\* $p < .05$ , Vouchers/No contract < Head Start/CDE contract, no vouchers/no contract.

holding Head Start or CDE contracts. Contracted programs paid higher assistant teacher wages, as well as higher average wages to their highest-paid teachers with BA or higher degrees.

***Size of the Teacher, Assistant Teacher and Director Workforce in California Centers Licensed to Serve Infants and/or Preschoolers***

Directors were first asked to report the overall number of teachers, assistant teachers and directors employed in their centers, and then to report how many teachers and assistant teachers worked in classrooms with infants and/or preschool children, and how many worked in classrooms with school-age children (if any such children were enrolled in their centers).<sup>7</sup> The following section provides information about:

- the overall number of teachers and assistant teachers working in classrooms with children in centers licensed to serve infants and/or preschoolers;
- the average number of teachers and assistant teachers working in such centers;
- the overall number of directors working in centers licensed to serve infants and/or preschoolers; and
- the average number of directors working in such centers.

The weighted estimates provided below are based on 89.0 percent of the

centers licensed to serve infants and/or preschoolers across the state. Between the times when our sample was drawn and when data were collected, 11.0 percent of centers initially included in our center population were no longer in business. Assuming that at least some of the closed centers were replaced by new centers, it is likely that the estimate provided here slightly undercounts the total members of the teacher, assistant teacher and director workforce.

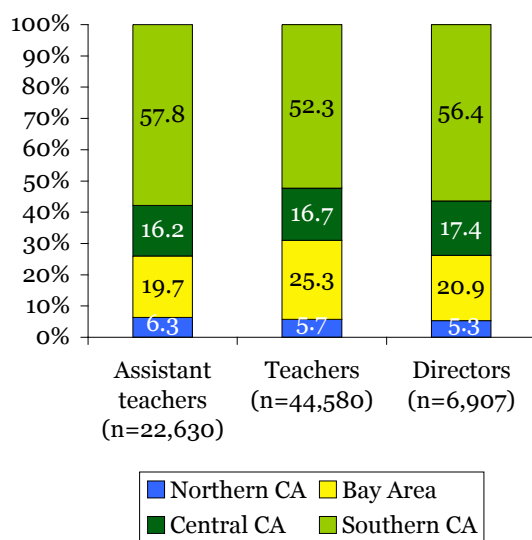
***Overall Number of Teachers, Assistant Teachers and Directors Employed in Centers Licensed to Serve Infants and/or Preschoolers***

As shown in Table 3.14, the teacher, assistant teacher and director workforce in California centers licensed to care for infants and/or preschoolers comprised 74,117 members. An estimate of the total workforce in these centers would also include teachers and assistants working with school-age children, and would increase the estimate by approximately 12.0 percent. Because many centers also employed cooks, custodians, social workers, family support workers, educational coordinators and office staff (Brandon et al., 2002), the total early care and education workforce for centers licensed to serve infants and/or preschoolers may approach or even exceed 100,000 members. The proportion of teachers, assistant teachers and directors employed within each region were similar to the proportions for the state as a whole.

As shown in Figure 3.8, the distribution of teachers, assistant teachers and directors varied considerably across regions, as would be expected, given variations in overall population density. More than one-half of all teachers,

<sup>7</sup> Assistant teachers and teachers working with school-age children constituted approximately six percent of the teaching staff workforce at these centers. We do not provide estimates of the statewide numbers of school-age teachers and assistant teachers employed in these programs, because we recognize that these staff constitute only a small portion of the teaching staff statewide working in programs to serve school-age children, most of which do not serve younger children and many of which are exempt from licensing.

Figure 3.8. *Estimated Percentage of Assistant Teachers, Teachers and Directors Who Work with Infants and/or Preschool Children: By Region*



Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

assistant teachers and directors were employed in the Southern California region, whereas less than 10 percent were employed in Northern California.

As shown in Table 3.15, centers enrolling infants as well as preschoolers employed a little more than one-third of all teachers, assistant teachers and directors, with the remaining staff employed in centers that did not enroll infants. Centers serving infants as well as preschoolers did not differ from those not serving infants, however, with respect to the proportion of their staff who were teachers, assistant teachers or directors.

Table 3.16 shows the statewide distribution of teachers, assistant teachers

and directors employed across centers based on the centers' subsidy status.<sup>8</sup> More than one-half of all assistant teachers in the state (53.1 percent), but only 22.8 percent of teachers, were employed in centers holding a Head Start or CDE contract. In contrast, 48.3 percent of all teachers in the state, but only 27.6 percent of assistant teachers, were employed in centers receiving public dollars through vouchers. Based on their relationship to public subsidy, centers varied with respect to the proportion of their staff who were teachers, assistant teachers or directors, as shown in Table 3.17.

#### *Average Number of Teachers, Assistant Teachers and Directors Employed in Centers Licensed to Serve Infants and/or Preschoolers*

As shown in Table 3.18, we estimate that centers in California licensed to serve infants and/or preschoolers employed, on average, six teachers, three assistant teachers and one director.<sup>9</sup> On average, the vast majority of teachers (93.2 percent, SE = 0.4) and assistant teachers (93.5 percent, SE = 0.6) in these programs worked with infants and/or preschoolers. The other teachers and assistant teachers worked with school-age children.

Table 3.19 shows the average numbers of teachers and assistant teachers in centers with different relationships to public subsidy. Contracted centers, on

<sup>8</sup> As described in the introduction of this report, contracted centers operate under more stringent ratio and staff qualification regulations; indeed, assistant teacher qualifications in contracted programs match or exceed those of teachers required by licensing in non-contracted programs.

<sup>9</sup> Note that 14 percent of centers had more than one director, 57.2 percent of centers had one director, and 28.6 percent of centers had no person who served only as an administrative director. In many of the latter centers, the person with director responsibilities was also a teacher. Output. Num Dir Freq 021506

Table 3.14. *Estimated Distribution of Assistant Teachers, Teachers and Directors Who Work with Infants and Preschool Children: Statewide*

		Assistant teachers	Teachers	Directors	Total
<b>Statewide</b>	Total number	22,630	44,580	6,907	74,117
	Percentage	30.5	60.2	9.3	100.0

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Table 3.15. *Estimated Number and Percentage of Assistant Teachers, Teachers and Directors Who Work with Infants and Preschool Children, By Ages of Children Served: Statewide*

		Assistant teachers	Teachers	Directors
<b>Centers enrolling infants<sup>a</sup></b>	Total Number	9,339	17,157	2,373
	Percentage	41.3	38.5	34.4
<b>Centers without infants</b>	Total Number	13,291	27,423	4,534
	Percentage	58.7	61.5	65.6
<b>All centers</b>	Total Number	22,630	44,580	6,907
	Percentage	100.0	100.0	100.0

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

<sup>a</sup> Most of these centers also enroll older children.

Table 3.16. *Estimated Number and Percentage of Assistant Teachers, Teachers and Directors Who Work with Infants and Preschool Children, By Centers' Relationship to Public Subsidy: Statewide*

		Assistant Teachers	Teachers	Directors
<b>Head Start/CDE contract</b>	Total number	12,011	10,167	1,824
	Percentage	53.1	22.8	26.4
<b>Vouchers/No contract</b>	Total number	6,258	21,536	3,165
	Percentage	27.6	48.3	45.8
<b>No vouchers/No contract</b>	Total number	4,361	12,877	1,918
	Percentage	19.3	28.9	27.8
<b>All centers</b>	Total number	22,630	44,580	6,907
	Percentage	100.0	100.0	100.0

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Table 3.17. *Estimated Number and Percentage of Assistant Teachers, Teachers and Directors Who Work with Infants and Preschool Children: Statewide and By Centers' Relationship to Public Subsidy*

		Assistant teachers	Teachers	Directors	Total
<b>All centers statewide</b>	Total number	22,630	44,580	6,907	74,117
	Percentage	30.5	60.2	9.3	100.0
<b>Head Start/CDE contract</b>	Total number	12,011	10,167	1,824	24,002
	Percentage	50.0	42.4	7.6	100.0
<b>Vouchers/No contract</b>	Total number	6,258	21,536	3,165	30,959
	Percentage	20.2	69.6	10.2	100.0
<b>No vouchers/No contract</b>	Total number	4,361	12,877	1,918	19,156
	Percentage	22.8	67.2	10.0	100.0

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Table 3.18. *Estimated Mean Number of Assistant Teachers, Teachers and Directors Employed by Centers: Statewide*

	Estimated mean (SE)	
	All staff	Infant/preschool teaching staff
Assistant teachers	3.1 (1.5)	2.89 (0.2)
Teachers	6.2 (1.1)	5.7 (0.1)
Directors	0.9 (0.2)	

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.



Table 3.19. *Estimated Mean Number of Teachers and Assistant Teachers Employed by Centers: Statewide, and By Centers' Relationship to Public Subsidy*

	Estimated mean number (SE)		
	Head Start/CDE contract	Vouchers/No contract	No vouchers/No contract
Assistant teachers*	5.3 (4.3)	2.1 (1.1)	2.1 (1.6)
<i>Number of centers</i>	2,342	3,235	2,277
Teachers**	4.6 (1.8)	7.3 (1.8)	6.1 (0.2)
<i>Number of centers</i>	2,346	3,235	2,277

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\* $p < .05$ . Head Start/CDE contract > vouchers/no contract, no vouchers/no contract.

\*\* $p < .05$ , Head Start/CDE contract < vouchers/no contract, no vouchers/no contract; No vouchers/no contract < vouchers/no contract.

average, employed fewer teachers and more assistant teachers than centers receiving public dollars through vouchers or those receiving no public dollars. Centers receiving no public dollars also employed fewer teachers than those centers receiving public dollars through vouchers.

## What are the characteristics of children in California child care centers licensed to serve infants and/or preschoolers?

*In California, approximately 65,000 teachers and assistants care for and educate approximately one-half million children in centers licensed to serve infants and/or preschoolers. Approximately 90 percent of the children cared for in these centers are not yet in kindergarten, and two-thirds are between the ages of three and five. Seven percent are children under age two, about 12 percent are age two, and about 10 percent are in kindergarten or a higher grade. Less than five percent of children in these centers are reported by directors to have special needs.*

*Nearly 75 percent of centers report caring for at least one child who receives public child care assistance. Forty percent of centers receive public dollars in the form of vouchers, and one-third of centers receive public dollars through a contract with Head Start or the California Department of Education, to cover the cost of care for the subsidized children they serve. Centers vary considerably in size, with one-quarter enrolling 36 or fewer children and one-quarter enrolling over 90 children.*

As shown in Table 3.20, licensed California child care centers provided services in 2005 to an estimated 485,355 infants and/or preschoolers not yet in kindergarten. In addition, these centers cared for 57,443 children in kindergarten or a higher grade.<sup>10</sup> Table 3.20 also presents a distribution by age group of the estimated numbers of children enrolled.<sup>11</sup> Approximately 70 percent of these children were preschoolers, ages three to five, 19.1 percent were two years old or younger, and 10.5 percent were in kindergarten or older.

Center directors were asked about the number of children in various age groups that their centers enrolled, and they reported a variety of age configurations:

- Virtually all centers (97.4 percent, SE=0.4) reported caring for children between the ages of three and five.
- Twelve percent (SE=0.7) reported caring for children across the entire age span from infancy through school-age. Centers enrolling at least one subsidized child through a voucher (22.8 percent, SE=1.6) were the most likely to care for children across the age span.
- About two-fifths (42.6 percent, SE=1.2) reported caring for at least one child attending kindergarten or a higher grade.
- Only one-quarter of centers (24.9 percent, SE=0.7) enrolled children under two, and less than one percent of centers enrolled infants exclusively.<sup>12</sup>
- Slightly less than two-thirds of centers (63.8 percent, SE=1.1) enrolled two-year-old children.

### The percentages of two-year-old

<sup>10</sup> This figure does not include centers licensed exclusively to serve school-age children.

<sup>11</sup> The licensed capacity of a center (the number of children it is approved to serve) may be less than or greater than actual number of children enrolled. Some centers, for example, may choose to enroll fewer children than permitted in their space, or may not be able to find enough children to reach their full capacity. Alternately, some centers may enroll children in part-day sessions, and thus serve a higher overall number of children but never exceed their licensed capacity at any given time.

<sup>12</sup> Some centers that do not have an infant license, have the Toddler Option within their preschool license. This allows them to serve children under two years.

**Table 3.20. Estimated Number of Children Enrolled in California Child Care Centers Licensed to Serve Infants and/or Preschoolers**

	Number enrolled (weighted data)
Under age 2	36,783
Age 2	66,907
Ages 3 to 5, not yet in kindergarten	381,665
Ages 5 or younger, not in kindergarten	485,355
Ages 5 or older, in kindergarten or higher grade	57,443
All age spans	542,798
Children with special needs	21,854

*Note.* Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

children and those younger than two varied somewhat across regions. As shown in Table 3.21, centers in Southern California were slightly more likely to care for at least one child under two than were centers in the Bay Area or Northern California. Centers in Northern California were less likely than centers in other parts of the state to care for two-year-olds, and centers in Central California were less likely to care for at least one two-year-old than were centers in Southern California. Table 3.22 shows the average number of children by age enrolled in centers statewide and by region, and indicates regional differences.

Centers varied considerably in terms of the overall number of children enrolled. Approximately 25 percent of centers enrolled 36 or fewer children, and about 25 percent enrolled 93 children or more. On average, centers enrolled 69.0 children across the entire age span (SE=1.0), and 61.7 infants and/or preschoolers (SE=1.1). As shown in Table 3.23, the average overall number of enrolled children

varied by region. On average, Southern California centers enrolled more children and Northern California centers enrolled fewer children than centers in other regions.

### **Centers and Public Dollars for Child Care Assistance**

Centers subsidize the cost of services for children enrolled in their programs as a condition of a contract the center holds with Head Start or the California Department of Education (CDE), or by accepting vouchers available to families through CalWorks and Alternative Payment Program funding. Thus, to determine whether programs enrolled any children who received public child care assistance, we asked whether the program held a contract with Head Start or CDE, or enrolled at least one child who received a voucher. We estimate that nearly 75 percent of centers in California licensed to serve infants and/or preschoolers enrolled at least one subsidized child. About one-third of centers (29.9 percent) held a contract with Head Start or CDE. (See Table 3.24.) Of the centers that did not have a Head Start or CDE contract, 58.7 percent reported enrolling at least one child who received a voucher. These centers represented 41.2 percent of all centers in our sample.

In centers that held contracts with Head Start or CDE, most if not all children received public assistance for child care.<sup>13</sup> Since vouchers “follow” specific children, however, centers without contracts that reported enrolling at least one child receiving public child care assistance may or may not have enrolled additional

<sup>13</sup> These centers may also accept vouchers, but we did not explore whether this was the case, as we knew that most enrolled children were subsidized.

Table 3.21. *Estimated Percentage of Centers Serving at Least One Child in Various Age Groups: Statewide and by Region*

	Estimated percentage (SE)				
	Statewide	Northern CA	Bay Area	Central CA	Southern CA
Under Age 2*	24.1 (0.7)	22.0 (1.3)	23.1 (1.3)	24.2 (1.2)	26.6 (1.2)
<i>Number of centers</i>	1,921	339	437	460	685
Age 2**	63.8 (1.1)	48.4 (2.5)	63.4 (2.2)	57.8 (2.2)	68.9 (1.7)
<i>Number of centers</i>	1,907	338	432	457	680
Ages 3 to 5, not yet in kindergarten	97.5 (0.4)	96.5 (0.9)	98.2 (0.6)	97.0 (0.8)	97.6 (0.6)
<i>Number of centers</i>	1,919	339	436	460	684
Ages 5 or older, in kindergarten or higher grade	42.6 (1.2)	42.6 (2.7)	39.5 (2.3)	40.3 (2.3)	44.8 (2.0)
<i>Number of centers</i>	1,915	338	435	459	683

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\* p < .05. Southern CA > Bay Area, Northern CA.

\*\* p < .001. Northern CA < all other regions; Central CA < Southern CA.

Table 3.22. *Estimated Mean Number of Children Served, by Age Group: Statewide and by Region (Includes only those centers that care for at least one child in that age range)*

	Estimated mean number of children served (SE)				
	Statewide	Northern CA	Bay Area	Central CA	Southern CA
Under Age 2	18.8 (1.0)	17.3 (2.5)	17.2 (1.4)	21.4 (1.8)	18.8 (1.6)
<i>Number of centers</i>	1,955	426	144	351	1,034
Age 2*	13.5 (0.4)	10.6 (0.8)	13.5 (0.7)	13.8 (0.8)	13.7 (0.5)
<i>Number of centers</i>	4,975	1,165	316	834	2,659
Ages 3 to 5, not yet in kindergarten*	49.9 (0.8)	37.2 (1.4)	46.2 (1.4)	47.6 (1.5)	54.6 (1.4)
<i>Number of centers</i>	7,653	1,820	632	1,408	3,793
Ages 5 or older, in kindergarten or higher grade*	17.23 (0.7)	12.9 (1.2)	16.7 (1.5)	16.4 (1.2)	18.4 (1.0)
<i>Number of centers</i>	3,334	732	278	584	1,740

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\* p < .05. Northern CA < Southern CA, Central CA.

Table 3.23. *Estimated Mean Number of Children Served: Statewide and by Region*

	Estimated mean number of children served (SE)				
	Statewide	Northern CA	Bay Area	Central CA	Southern CA
All age spans*	69.0 (1.0)	49.4 (2.1)	64.5 (2.0)	64.7 (1.9)	76.0 (1.9)
<i>Number of centers</i>	7,754	651	1,824	1,434	3,845
Ages 5 or younger, not in kindergarten*	61.7 (1.1)	44.1 (1.9)	57.9 (1.7)	58.4 (1.7)	67.7 (1.7)
<i>Number of centers</i>	7,780	653	1,833	1,437	3,857

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\* p < .05. Southern CA > all other region; Northern CA < all other regions.

Table 3.24. *Estimated Percentage of Centers That Receive Public Dollars: Statewide*

	Estimated percentage (SE)	Number of centers
Head Start/CDE contract	29.9 (1.1)	2,346
Vouchers/No contract	41.2 (1.2)	3,235
No vouchers/No contract	29.0 (1.1)	2,277

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

**Table 3.25. Estimated Mean Percentage of Subsidized Children Enrolled in Centers Receiving Vouchers: Statewide and by Region**

	Estimated mean percentage (SE)				
	Statewide	Northern CA	Bay Area	Central CA	Southern CA
Children receiving voucher subsidy*	17.6 (0.8)	17.1 (1.4)	12.4 (1.1)	21.5 (1.7)	18.5 (1.3)
<i>Number of centers</i>	3,195	278	689	581	1,647

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\*  $p < .05$ . Central CA > Bay Area, Southern CA.

subsidized children. We therefore asked directors who reported enrolling at least one subsidized child through a voucher, how many such children they enrolled. We were thus able to calculate the percentage of children receiving public child care assistance in programs that enrolled at least one child with a voucher.

On average, in centers that cared for at least one child receiving a child care voucher, 17.6 percent of children (SE=0.8) enrolled in that center received this type of assistance. There was considerable variation in the percentage of children enrolled in centers that received vouchers. Approximately 25 percent of centers enrolled 4.2 percent or fewer children on vouchers, while 50 percent of centers enrolled 10 percent or fewer children, and 25 percent enrolled 25 percent or more children. Centers enrolling infants reported a higher average percentage of children on vouchers (23.3 percent, SE=1.5) than did centers caring for no children under two (14.4 percent, SE=0.8). As shown in Table 3.25, the average percentage of children enrolled in centers receiving public dollars in the form of vouchers varied by region. Centers in Central California cared for the highest average percentage of children on vouchers.

Average center size did not vary by whether a center held a contract with

Head Start or CDE, did not hold a contract but accepted public vouchers for children of low-income families, or did not receive any public dollars. As shown in Tables 3.26 and 3.27, however, the percentage of centers caring for children of different ages, and the number of children in each age group enrolled, differed by centers' subsidy status. Generally, centers receiving public dollars in the form of vouchers were the most likely to enroll children across the age span.

We estimate that the majority of licensed California child care centers (55.9 percent, SE=1.2) were private nonprofit agencies. Public agencies (e.g., school districts) operated 16.4 percent (SE=0.9) of centers, and for-profit agencies constituted 27.7 percent (SE=1.1) of centers. As shown in Table 3.28, there was some variation across regions with respect to programs operating under different auspices. Centers that held a Head Start or CDE contract were more likely to be publicly operated, and less likely to be for-profit, than other types of centers. Centers receiving no public dollars were more likely to be for-profit than centers holding a Head Start or CDE contract, but less likely to be for-profit than centers serving children with vouchers.

Table 3.26. *Percentage of Centers Serving at Least One Child in Various Age Groups: Statewide and by Centers' Relationship to Public Subsidy*

	Estimated percentage (SE)			
	Statewide	Head Start/ CDE contract	Vouchers/No contract	No vouchers/ No contract
Under Age 2*	24.1 (0.7)	20.0 (1.6)	35.8 (1.6)	14.5 (1.6)
<i>Number of centers</i>	1,921	624	780	517
Age 2**	63.8 (1.1)	36.9 (2.1)	86.9 (1.3)	58.9 (2.3)
<i>Number of centers</i>	1,907	619	775	513
Ages 3 to 5, not yet in kindergarten*	97.5 (0.4)	95.0 (0.9)	95.5 (0.5)	98.7 (0.7)
<i>Number of centers</i>	1,919	624	780	515
Ages 5 or older, in kindergarten or higher grade**	42.6 (1.2)	22.1 (1.9)	63.2 (1.9)	34.4 (2.3)
<i>Number of centers</i>	1,915	623	775	517

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\*  $p < .05$ . Vouchers/No contract > Head Start/CDE contract, no vouchers/no contract.

\*\*  $p < .001$ . Vouchers/No contract > Head Start/CDE contract, no vouchers/no contract; No vouchers/No contract > Head Start/CDE contract.

Table 3.27. *Estimated Mean Number of Children Served by Age Group: Statewide and by Centers' Relationship to Public Subsidy (Includes only those centers that care for at least one child in that age range)*

	Estimated mean number of children served (SE)			
	Statewide	Head Start/ CDE contract	Vouchers/No contract	No vouchers/ No contract
Under Age 2	18.8 (1.0)	20.1 (2.0)	17.9 (1.0)	20.2 (4.0)
<i>Number of centers</i>	1,955	466	1,158	331
Age 2	13.5 (0.4)	13.2 (0.9)	13.5 (0.4)	13.4 (0.9)
<i>Number of centers</i>	4,975	856	2,791	1,328
Ages 3 to 5, not yet in kindergarten*	49.9 (0.8)	55.8 (1.7)	45.0 (1.1)	50.8 (1.5)
<i>Number of centers</i>	7,653	2,229	3,187	2,237
Ages 5 or older, in kindergarten or higher grade**	17.23 (0.7)	24.9 (2.0)	16.0 (0.8)	15.3 (1.3)
<i>Number of centers</i>	3,334	516	2,034	784

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\*  $p < .05$ , Vouchers/No contract < Head Start/CDE contract, no vouchers/no contract.

\*\*  $p < .05$ , Head Start/CDE contract > vouchers/no contract, no vouchers/no contract.



Table 3.28. *Estimated Percentage of Center Auspices: Statewide, Within Region and by Centers' Relationship to Subsidy*

		Estimated Percentage (SE)				Number of centers
		Private non-profit	Public	For-profit	Total	
<b>Statewide</b>		55.9 (1.2)	16.4 (0.9)	27.7 (1.1)	100.0	1,921
<b>By region*</b>	Northern CA	45.4 (2.7)	24.8 (2.3)	26.8 (2.4)	100.0	339
	Bay Area	57.0 (2.4)	11.0 (1.5)	32.0 (2.2)	100.0	437
	Central CA	54.5 (2.3)	21.9 (1.9)	23.5 (1.9)	100.0	460
	Southern CA	57.1 (2.0)	15.5 (1.4)	27.4 (1.8)	100.0	685
<b>By relationship to subsidy**</b>	Head Start/CDE contract	48.0 (2.1)	48.7 (2.2)	3.28 (0.7)	100.0	624
	Vouchers/No contract	51.1 (1.9)	2.47 (0.5)	46.4 (1.9)	100.0	780
	No vouchers/No contract	70.7 (2.1)	2.86 (0.8)	26.4 (2.1)	100.0	517

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\* p < .05, Public: Bay Area < Northern CA, Central; Southern CA < Northern CA. For-profit: Bay Area > Central.

\*\* p < .05, Private non-profit: No vouchers/No contract > Head Start/CDE contract, vouchers/no contract. Public: Head Start/CDE contract > Vouchers/No contract, no vouchers/no contract. For-profit: Vouchers/No contract > Head Start/CDE contract, no vouchers/no contract; No vouchers/No contract > Head Start/CDE contract.

### ***Children with Special Needs***

Center directors were asked how many children (if any) with disabilities, or with special emotional or physical needs, were enrolled in their centers.<sup>14</sup> As a result, we estimate that 55.8 percent (SE=1.2) of California's centers licensed to serve infants and/or preschoolers care for children with special needs. On average, children with special needs constituted eight percent (SE=0.3) of the child population in centers that enrolled at least one such child. Only one-quarter of centers reported that six percent or more of their children had special needs, and only one percent of centers reported that children with special needs constituted one-third or more of all the children enrolled.

There were no significant differences by region in the percentage of centers that reported enrolling at least one child with special needs. Centers serving infants as well as older children were no more likely to enroll children with special needs than were centers serving only children under age two. The average percentage of children with special needs cared for by centers enrolling at least one such child, whether the center did or did not care for infants as well as older children, also did not vary by region.

Depending on whether, and through which vehicle, they served subsidized children, centers differed in whether they enrolled any children with special needs, as well as in the percentage of

their enrolled children who had special needs. Centers that received public funding to serve children of low-income families through a Head Start or CDE contract were more likely to care for at least one child with special needs than were centers that received public funding only through vouchers or did not care for any subsidized children. (See Table 3.29.) Centers with a Head Start or CDE contract also reported enrolling a higher percentage of children with special needs, in part reflecting these centers' mandate to do so, as shown in Table 3.30.

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<sup>14</sup> Interviewees were told, "By disabilities or special needs, we mean any child who is protected by the American with Disabilities Act (ADA)." If the interviewee asked for clarification, interviewers added, "This would include children who are considered at-risk of a developmental disability, or who may not have a specific diagnosis but whose behavior, development, and/or health affect their family's ability to find and maintain services."

Table 3.29. *Estimated Percentage of Centers that Care for At Least One Child with Special Needs: Statewide and by Centers' Relationship to Public Subsidy*

	Estimated percentage (SE)			
	Statewide	Head Start/CDE contract	Vouchers/No contract	No vouchers/No contract
No children with special needs	44.2 (1.2)	28.5 (2.0)	47.4 (2.0)	55.4 (2.4)
At least one child with special needs*	55.8 (1.2)	71.5 (2.0)	52.6 (2.0)	44.6 (2.4)
<i>Total</i>	100.0	100.0	100.0	100.0
<i>Number of centers</i>	1,889	608	770	511

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\*p < .001. Head Start/CDE contract > vouchers/no contract, no vouchers/no contract.

Table 3.30. *Estimated Mean Percentage of Children with Special Needs Served: Statewide and by Centers' Relationship to Public Subsidy (Includes only those centers that care for at least one child with special needs)*

	Estimated mean percentage (SE)			
	Statewide	Head Start/CDE contract	Vouchers/No contract	No vouchers/No contract
Children with special needs served*	8.0 (0.3)	10.4 (0.5)	6.7 (0.5)	6.3 (0.7)
<i>Number of centers</i>	4,311	1,626	1,682	1,003

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\*p < .05, Head Start/CDE contract > vouchers/no contract, no vouchers/no contract.

## **What is the level of educational attainment and early childhood development-related training among teachers, assistants and directors in California's child care centers?**

*Compared to California's overall female population, teachers working in centers enrolling infants and/or preschoolers are more likely to have attended college and/or completed a two-year degree. They are equally likely to have completed a four-year or higher college degree, and less likely to have completed high school only.*

*One-quarter of teachers have completed a four-year or graduate degree, and slightly more than one-quarter have completed a two-year degree, typically with an early childhood focus. Forty percent of centers, however, do not employ any teachers with a four-year or higher degree.*

*Assistant teachers in California are also more likely than the average female in the state to have attended college and/or completed a two-year degree, but they are less likely to have obtained a four-year or higher degree. Assistant teachers have lower levels of degree attainment than teachers or directors. Approximately one-half of assistant teachers have completed from one to 23 college credits related to early childhood development. Only 12 percent have completed neither college credits nor a degree related to early childhood.*

*More than three-quarters of directors have completed a two-year, four-year or higher degree, typically with an early childhood focus. Directors are more than twice as likely as teachers to have completed a four-year or higher degree, and have completed associate degrees at roughly the same rate as teachers.*

*The majority of degree holders have completed a degree related to early childhood development. Approximately one-quarter of those with BA or higher degrees obtained their degree through a foreign institution.*

*Across the state, about one-third of teachers and one-quarter of assistant teachers employed in counties with a CARES or similar program are current participants in it. About two-thirds of centers report employing at least one teacher who is a CARES participant, and about one-third report employing at least one assistant teacher who is a CARES participant. Within such centers, typically about two-thirds of teachers and assistants are participating.*

*Just over one-half of all teachers with an AA or higher degree hold a Child Development Permit, and just over one-half of all directors hold a Site Supervisor Permit. About one-quarter of teachers and one-third of directors with a BA or higher degree have a teaching credential (as opposed to a Child Development Permit) issued by the California Commission on Teacher Credentialing.*

Research has indicated that the presence of better-trained adults enhances the quality of child care services for children (Whitebook & Sakai, 2004; Shonkoff & Phillips, 2000). Because of the critical role that teachers' skill and knowledge play in promoting children's optimal development, considerable effort and investment have been devoted to encouraging and supporting teachers, assistants and directors to pursue professional development through CARES and other programs. With the movement toward expansion of publicly funded preschool services, there is also an increased need to assess the size of the task of recruiting and preparing a sufficient number of teachers and assistants who meet higher educational and training standards – i.e., a bachelor's (BA) degree and early childhood certification for teachers, and 48 college credits for assistant teachers. While not all teachers and assistants in publicly funded preschools will be drawn from the current early care and education workforce, many no doubt will come from its ranks. The educational and training background of the current workforce therefore becomes an important factor in planning the level of resources needed to ensure a well-prepared workforce for preschool classrooms.

### ***Overall Educational Attainment of Teachers, Assistants and Directors***

As is true nationally (Herzenberg, Price & Bradley, 2005), we found that center-based teachers in California typically had completed some college credits, and were more likely than the average adult woman in the state to have done so. As shown in Figure 3.9, virtually all teachers (99.6 percent) had completed some college-level work, compared to

59.6 percent of adult women in California. Teachers reported a higher completion rate for an associate degree (27.8 percent) than is true for the average adult female in the state (8.3 percent). Teachers' completion rates for BA or higher degrees<sup>15</sup> (25.1 percent) nearly matched that of women in the state as a whole (27.0 percent).

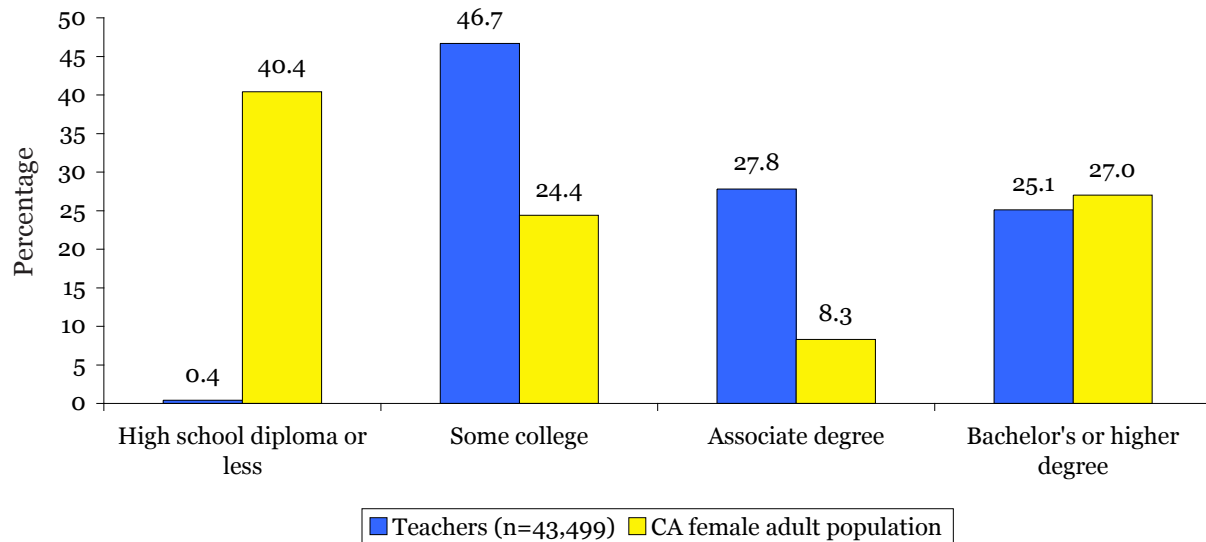
Not all centers employed teachers with a four-year or higher degree; such teachers were concentrated in 59.7 percent of centers. In centers that employed at least one teacher with a four-year or higher degree, 45.8 percent of teachers, on average, held such degrees. (See Table 3.31.) Nearly one-half of all assistant teachers (48.8 percent) had completed one to 23 college credits related to early childhood development. In centers employing at least one assistant who had completed one to 23 credits, 73.4 percent of assistants, on average, had done so.

As shown in Figure 3.10, the vast majority of assistants (87.9 percent) had also completed some college-level work, and they were more likely than the average female in the state to have done so. Assistants had completed two-year degrees at a higher rate (12.4 percent) than the average adult female in California, but at a lower rate than teachers. Assistants had completed four-year or higher degrees at a lower rate (7.4 percent) than teachers or adult females in the state.

Not all centers employed assistant teachers with AA or higher degrees; such assistants were concentrated in 36 percent

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<sup>15</sup> We asked directors whether teachers had obtained four-year or higher degrees, but we did not collect independent information on the percentage of teachers with graduate degrees.

Figure 3.9. *Estimated Educational Attainment of Center Infant and Preschool Teachers Compared to the California Female Adult Population: Statewide*

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

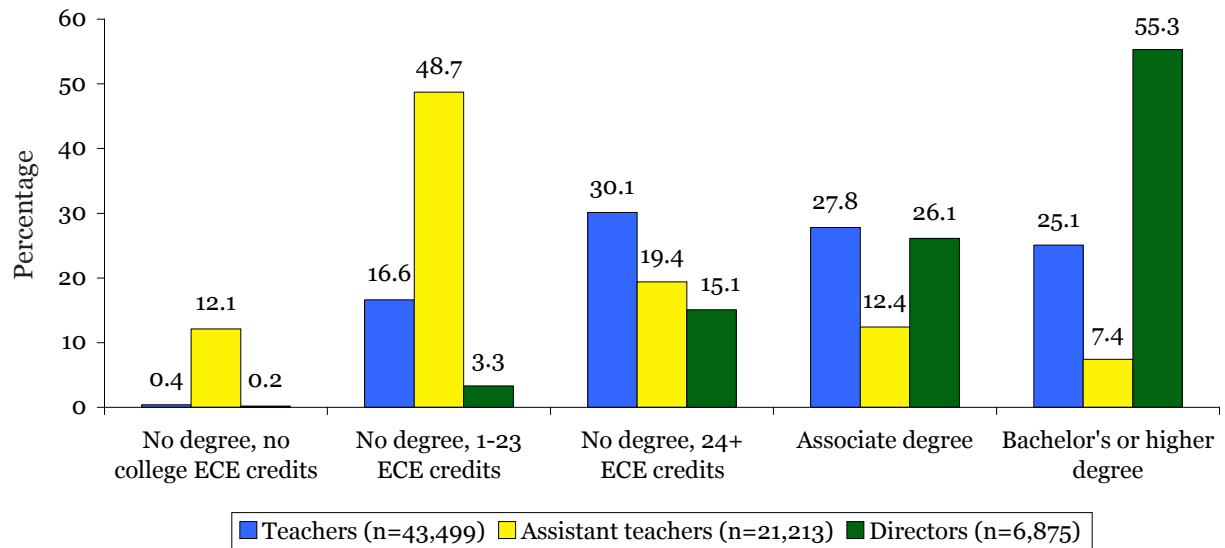
Table 3.31. *Estimated Mean Percentage of Teachers and Assistants Employed in Centers, By Education Level: Statewide<sup>a</sup>*

	Estimated mean percentage (SE)				
	No degree, no college ECE credits	No degree, 1-23 ECE credits	No degree, 24+ ECE credits	Associate degree	Bachelor's or higher degree
Teachers	0.3 (0.1)	42.3 (1.0)	47.2 (0.8)	44.3 (0.8)	45.8 (0.9)
<i>Number of centers</i>	7,674	2,553	4,555	5,256	4,582
Assistant teachers	61.7 (2.2)	73.4 (1.1)	54.9 (1.7)	44.4 (1.6)	46.7 (2.0)
<i>Number of centers</i>	1,198	3,531	1,826	1,373	973

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

<sup>a</sup> Includes only centers with at least one staff member with that level of education.

Figure 3.10. *Estimated Educational Attainment of Center Infant and Preschool Teachers, Assistant Teachers and Directors: Statewide*



Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.



of centers. In centers that employed at least one assistant teacher with an AA or higher degree, an average of 44.4 percent (SE= 1.6) of assistants held AA degrees, and 46.7 percent (SE=2.0) held BA or higher degrees.

More than three-quarters of directors had completed an AA or higher degree. Over one-half of directors (55.3 percent) had completed a BA or higher degree, as shown in Figure 3.10. Slightly more than one-quarter (26.1 percent) had completed an AA degree. Overall, 60 percent of centers had at least one director with a BA or higher degree.

### ***Degree Attainment Through a Foreign Institution***

Among the 25.0 percent of teachers who had earned a four-year or higher degree, 15.6 percent were reported to have obtained it through a foreign institution. These teachers were concentrated, however, in 24.4 percent of the centers across the state.

Among the approximately 20 percent of assistants who had earned an AA or higher degree, 12.1 percent had obtained it through a foreign institution, according to director reports. These assistant teachers were concentrated in only 19.3 percent of centers.

Over one-half (55.3 percent) of directors had obtained four-year or higher degrees. Of these, 9.0 percent had obtained their degrees through a foreign institution.

### ***Education, Training and Certification Related to Early Childhood Development***

Research findings on the contribution of education and training to teaching staff competence and sensitivity suggest that formal higher education with a specific focus in early care and education leads to more effective care and teaching with children (Barnett, 2003; Whitebook, 2003; Zaslow & Martinez-Beck, 2005). Thus, another important aspect of professional preparation is the extent to which teachers and assistants have received training, completed coursework, or participated in activities specifically focused on issues related to early childhood development. Research also suggests the important contribution played by director education and stability to overall center quality (Whitebook & Sakai, 2004; Helburn, 1995). To acquire a picture of the professional preparation of teachers, assistants and directors, we asked directors whether they or their teaching staff:

1. had completed a two-year or four-year degree related to early childhood development;
2. had taken college courses related to early childhood development if they had not completed a two-year or four-year degree; and/or
3. had participated in a professional development program or obtained a professional credential.

#### ***1) Degrees Related to Early Childhood Development***

We examined the percentage of teachers, assistant teachers and directors with AA and BA degrees whose degree was related to early childhood development, and whether those with an AA or BA

degree were more likely to have completed such a degree.

Overall, 25.1 percent of teachers had completed a BA degree or higher, and 27.8 had completed an AA degree. Nearly two-thirds of teachers with a BA or higher degree (64.0 percent) and 82.6 percent of teachers with an AA degree had obtained an early childhood-related degree.

Overall, 20.1 percent of assistant teachers had completed an AA, BA or higher degree. More than one-half of assistants with an AA or higher degree (59.8 percent) had obtained a degree with an early childhood focus.

Overall, 55.3 percent of directors had completed a BA degree or higher, and 26.1 percent had completed an AA degree. Similar to teachers, 68.8 percent of directors with a BA or higher degree and 83.8 percent of directors with an AA degree had obtained a degree related to early childhood.

Among infant and preschool teachers across all levels of educational attainment, 13.9 percent had earned a four-year degree or higher with an early childhood focus, and 20.2 percent had earned an AA degree with an early childhood focus. Among directors across all levels of educational attainment, 37.5 percent had earned a four-year degree or higher, and 21.7 percent had earned an AA degree, with an early childhood focus.

## *2) College Credits Related to Early Childhood Development*

We were interested in knowing the extent to which teachers, assistant teachers and directors who had not completed degrees had participated in specialized early childhood-related

education, and thus examined what percentage had completed from one to 23, or 24 or more, early childhood-related college credits.

Slightly less than one-half of all teachers across the state (47 percent) had completed such college credits but had not completed a degree. Thirty (30.1) percent of teachers had completed 24 or more credits, and 16.6 percent had completed from one to 23 credits, of early childhood-related coursework. Less than one percent of all teachers had completed neither a college degree nor any college credits related to early childhood.

Most assistant teachers (80.2 percent) had not completed a two-year or higher degree, but most had completed at least some college credits related to early childhood. Directors reported that 48.8 percent of assistant teachers had completed from one to 23 credits, 19.4 percent had completed 24 or more credits, and only 12.1 percent had completed neither credits nor a degree.

Directors followed a similar pattern to teachers, with most of those who had not completed degrees having completed 24 or more early childhood-related credits. Less than one-fifth (18.6 percent) of directors across the state had not completed a degree. Fifteen (15.1) percent of directors had completed 24 or more credits, 3.3 percent had completed less than 24 credits, and 0.2 percent had completed neither a degree nor college credits related to early childhood.

## *3) Participation in Professional Development Activities or Certification*

Another measure of professional preparation is involvement with professional development activities

and/or certification processes. We asked directors:

- whether they had heard of the CARES program, if one operated in their county, and whether their teachers or assistants currently participated in it;
- whether they or their teachers held a Child Development Permit issued by the California Commission on Teacher Credentialing; and
- whether they or their teachers held a Teacher Credential issued by the California Commission on Teacher Credentialing and/or by an equivalent agency in another state.

### *CARES*

We asked directors working in counties that operate a CARES or similar program whether they were familiar with it, and 78.2 percent of such directors were. We then asked whether their teachers or assistant teachers were currently CARES participants, and across the counties that operate such programs, directors reported that 36.5 percent of teachers and 27.0 percent of assistant teachers were. More than two-thirds of centers (68.4 percent, SE =1.5) reported employing at least one teacher who was a CARES participant, and more than one-third of centers (38.4 percent, SE=1.8) reported employing at least one assistant teacher who was a CARES participant. In centers that employed at least one CARES participant, the majority of teachers (65.1 percent, SE=1.2) and assistants (64.8 percent, SE=1.8) appeared to be participants.

### *Child Development Permits*

The California Commission on Teacher Credentialing issues Child Development Permits for teachers, assistant teachers and directors that reflect different levels

of education and specialized training. These permits are required in programs holding contracts with the California Department of Education (CDE), and are increasingly required of participants in CARES programs. We asked directors what percentage of their teachers and assistant teachers with two- or four-year degrees also held a permit.

About one-half (52.0 percent) of all teachers with a BA or higher degree, and 57.0 percent of teachers with an AA degree, held a Child Development Permit, according to directors' reports. Among all teachers with an AA or higher degree, 54.7 percent held a permit. More than two-fifths (41.4 percent) of assistant teachers with an AA or higher degree held a permit. We did not collect information about permits for non-degreed teachers.

Directors were asked whether they held a Site Supervisor Permit intended for program or site directors; 57.5 percent of directors with a BA or higher degree, and 44.5 percent of directors with an AA degree, did so.

### *Teaching Credentials*

A teaching credential, in contrast to a Child Development Permit, requires the holder to have completed a BA degree at a minimum, and typically the equivalent of a fifth year of college coursework. We asked whether directors or teachers who had completed a BA or higher degree held a teaching credential issued by the State of

California or another state.<sup>16</sup>

Among all teachers who had earned a BA or higher degree, 23.5 percent held a California teaching credential, and 4.5 percent held a credential from another state. Among all teachers in the state (including those with BA or higher degrees, or with lower levels of educational attainment), 5.2 percent held a California teaching credential. Among all directors who had earned a BA or higher degree, 33.2 percent held a California teaching credential and 8.5 percent held one from another state.

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<sup>16</sup> See Bellm, Whitebook, Cohen & Stevenson (2004) for a description of the credentialing options in California related to early care and education. For this question, we did not ask respondents to specify the type of credential that teachers or directors held; thus, their answers could include early childhood-related or K-12 credentials. While the Standard Early Childhood Credential is no longer issued, the credential is still honored, though not required as a condition of employment, in most, if not all, settings.

## **How do levels of overall educational attainment, and professional preparation related to early childhood development, vary among teachers, assistant teachers and directors employed in centers licensed to serve infants and/or preschoolers?**

*Levels of education among teachers, assistant teachers and directors vary by region, and generally follow the patterns of variation in educational attainment among all adults in the state, with Bay Area centers being the most likely to employ at least one teacher with a BA or higher degree.*

*Centers that enroll both infants and preschoolers report a somewhat lower percentage of teachers with BA or higher degrees than those enrolling preschoolers but no infants.*

*Educational attainment also varies by centers' relationship to public subsidy. Centers receiving public dollars through vouchers report a lower percentage of teachers and directors who have obtained a BA or higher degree than all other centers. Centers holding a Head Start or CDE contract report higher levels of AA degree attainment among their teachers. Teachers in contracted centers are also the most likely to hold a Child Development Permit.*

*Educational attainment varies by age among teachers, but not among assistant teachers. Teachers with Bachelor's or higher degrees are older, on average, than those with less education.*

*Teachers' educational attainment also varies by ethnicity and language: among those with Bachelor's or higher degrees, compared to the ethnic distribution among the teacher population as a whole, White, Non-Hispanic and African American teachers are represented proportionately, while Asian/Pacific Islanders are over-represented and Latinas are under-represented. About 40 percent of Asian/Pacific Islander, 25 percent of White, Non-Hispanic, 20 percent of African American and 12 percent of Latina teachers have completed a BA or higher degree. Latina, African American and Asian/Pacific Islander teachers have attained BA or higher degrees at higher rates than their counterparts in the overall state population, while White, Non-Hispanic teachers are less likely to have earned a BA than White, Non-Hispanic California adults.*

*With respect to linguistic capacity, teachers with AA degrees, on average, are somewhat more likely than either teachers with BA or higher degrees, or teachers with no degrees, to have the capacity to communicate with children in a language other than English. Among assistant teachers, there is little or no variation by educational attainment in the percentage of those who speak a language other than English fluently.*



In the previous section, we described the educational attainment and early childhood-related professional development of center-based teachers, assistants and directors employed in centers licensed to serve infants and/or preschoolers across California as a whole. Here, we explore differences within the workforce along these dimensions based on:

- the regions in which centers operate,
- the ages of children enrolled in centers,
- whether centers receive public dollars to care for children of low-income families,
- teaching staff compensation and turnover in centers, and
- such teacher, assistant teacher and director demographic characteristics as age, ethnicity and language background.

### ***Overall Educational Attainment, by Region***

Previous research in California has identified variations at the county level in educational attainment among center-based staff (Whitebook et al., 2004). This study has identified such variations at the regional level.<sup>17</sup> Figures 3.11 and 3.12 show educational attainment for teachers, assistant teachers and directors by region.

We posed three questions with respect to regional variation in educational attainment:

1. Are patterns of educational attainment among teachers, assistants and

directors within the various regions similar to the statewide pattern?

2. Within regions, are patterns of educational attainment among teachers, assistants and directors similar to the patterns found among the region's overall female adult population?
3. Across regions, does professional preparation vary, as measured by certification and early childhood-related degrees?

We examined whether the pattern identified for the state as a whole held at the regional level: namely, that teachers, assistant teachers and directors were more likely than other adult women in the state to have completed some college-level work and/or a two-year college degree, and that teachers were about as likely, assistant teachers were less likely, and directors were more likely than other adult women to have obtained a four-year or higher college degree.

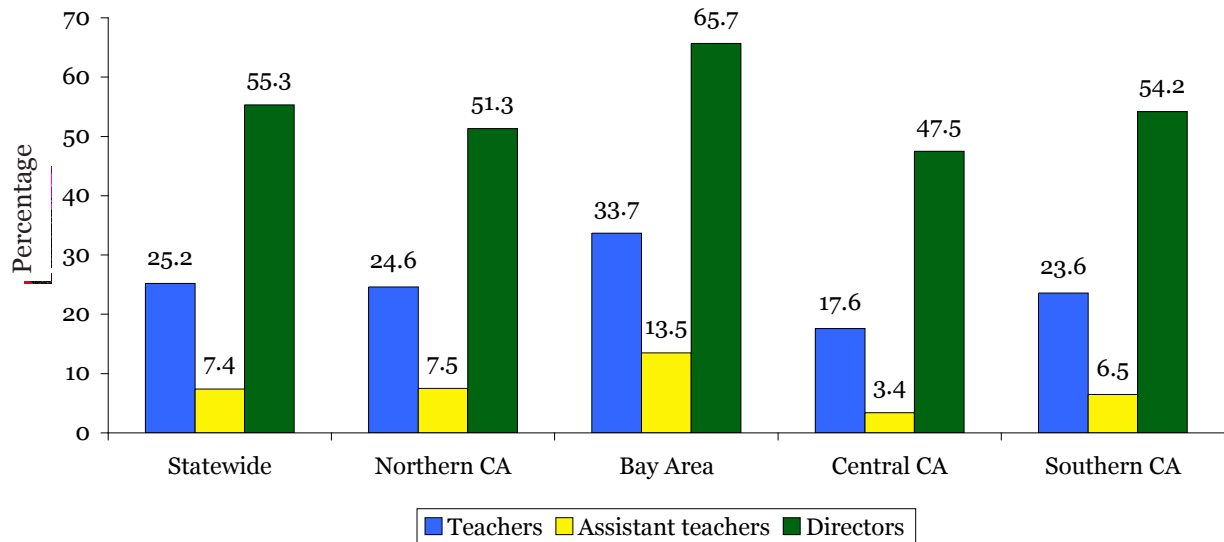
Across regions, as shown in Figures 3.13 and 3.14, educational attainment among teachers and the female adult population, as measured by the attainment of two-year, four-year or higher degrees, were generally consistent with the pattern for the state as a whole.

Levels of educational attainment varied by region and generally followed the patterns of variation in educational attainment among the adult female population in the region, as shown in Figure 3.13. Teachers in the Bay Area were more likely to have obtained four-year or higher degrees (33.7 percent) than their counterparts in Central California (17.6 percent), Northern California (24.6 percent) or Southern California (23.6 percent), and this same pattern held for

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<sup>17</sup> Within regions, county variations may also exist, but this study does not include county-level profiles. County-level studies are available for Alameda, Los Angeles, Marin, Merced, Mono, Sacramento, San Francisco, Santa Barbara, and Santa Clara Counties at [give link](#).

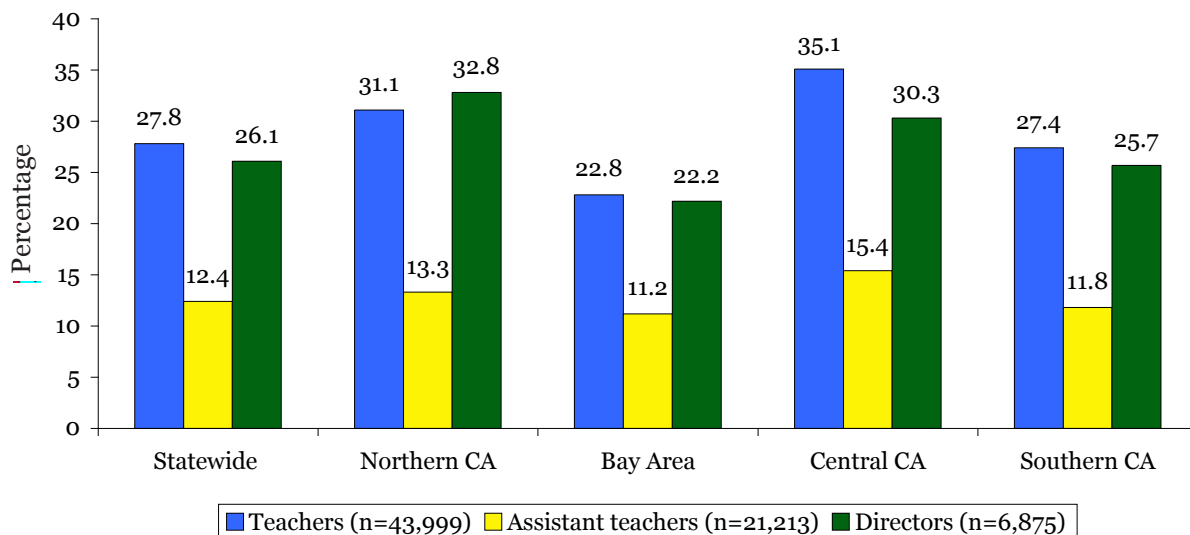
Figure 3.11. *Estimated Percentage of Teachers, Assistant Teachers and Directors with a Bachelor's or Higher Degree: Statewide and by Region<sup>a</sup>*



Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

<sup>a</sup> Sample size for statewide data: Number of teachers = 43,499, number of assistant = 21,213, number of directors = 6,875. Northern California: Number of teachers = 2,510, number of assistants = 1,434, number of directors = 365. Bay Area: Number of teachers = 10,858, number of assistants = 3,909, number of directors = 1,438. Central CA: Number of teachers = 7,276, number of assistants = 3,507, number of directors = 1,197. Southern CA: Number of teachers = 22,855, number of assistants = 12,363, number of directors = 3,875.

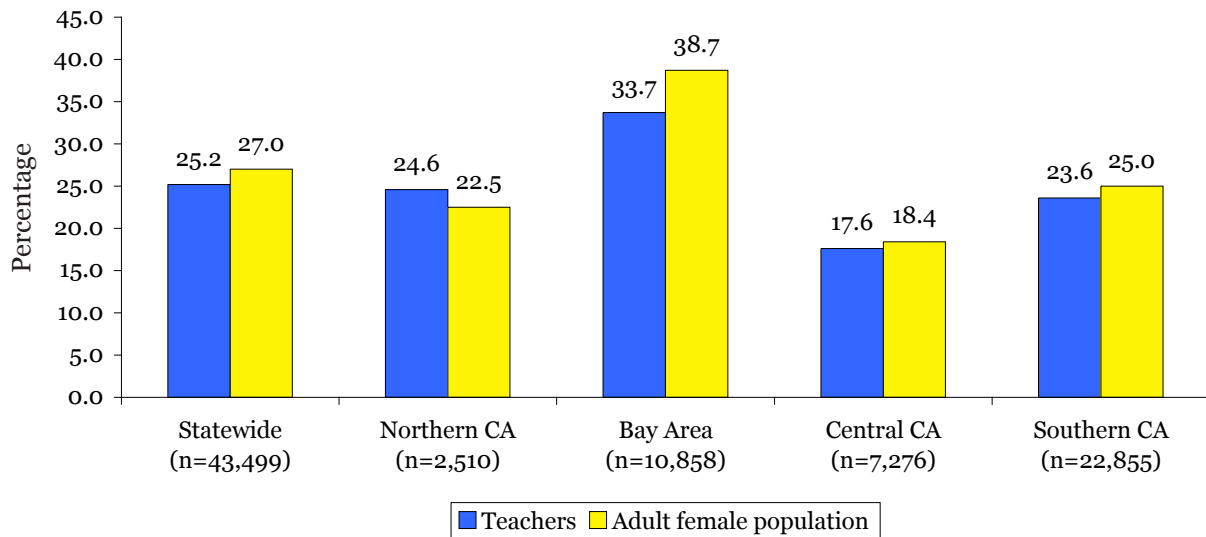
Figure 3.12. *Estimated Percentage of Teachers, Assistant Teachers and Directors with an Associate Degree: Statewide and by Region*



Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

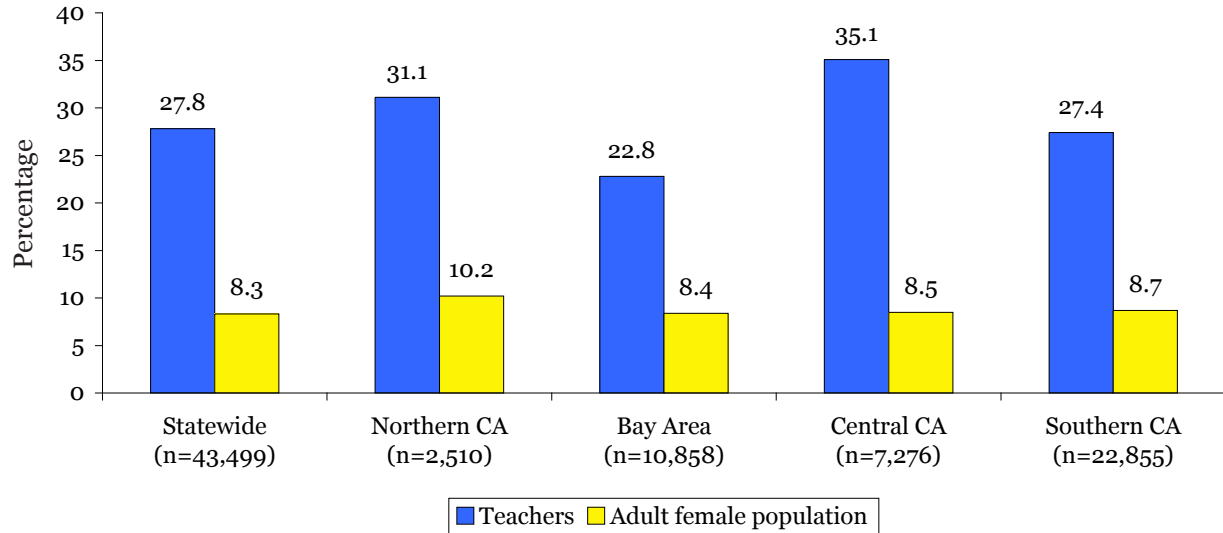


**Figure 3.13. Estimated Percentage of Teachers with a Bachelor's or Higher Degree, Compared to Adult Female Population: Statewide and By Region**



Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

**Figure 3.14. Estimated Percentage of Teachers with an Associate Degree, Compared to Adult Female Population: Statewide and By Region**



Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

adult females in the state as a whole: those residing in the Bay Area were more likely to have obtained a four-year or higher degree than those residing in other parts of California.

Looking more closely within regions, only the Bay Area, which reported the highest level of BA or higher degrees among its teachers, reported somewhat lower rates of four-year degree completion than the average female in the region. Among all other regions, the percentages of teachers and adult females with BA degrees were within a couple of points, as shown in Figure 3.13. AA degree completion rates were consistently higher among both teachers and assistant teachers statewide and within regions, with the rates for teachers being about three times higher than that of all females, and the rates for assistants half again as high. (See Figure 3.14.) Only in the Bay Area was the rate of AA completion among teachers lower than the rate of BA or higher degree completion; in all other regions of the state, the opposite was true. (See Figures 3.13 and 3.14.)

When interpreting these results, it is important to remember that not all centers employed teachers (or other staff) with various levels of education. As shown in Table 3.32, nearly three-quarters of Bay Area centers employed at least one teacher with a BA or higher degree, while a little less than one-half of centers in Central California did so. Among centers employing at least one teacher with a BA or higher degree, the average percentage of such teachers also varied by region, as shown in Table 3.32.

Regional differences also emerged with respect to the percentage of centers employing at least one teacher who had obtained a BA or higher degree from a

foreign institution. Across the state, 24.4 percent of centers (SE=1.4) employed at least one such teacher, and centers in the Bay Area were the most likely (32.1 percent, SE =2.7) to employ at least one such teacher. Centers in Southern California were the next most likely (26.2 percent, SE =2.4), followed by Central California (13.1 percent, SE=2.9) and Northern California (5.6 percent, SE=1.7). A similar pattern was identified for assistant teachers with foreign degrees.

### *Early Childhood Related Education and Certification*

Most degree-holding teachers and assistant teachers had completed a degree related to early childhood development, as previously described. Most centers across the state with at least one teacher with a BA or an AA employed at least one teacher (BA level, 78.0 percent, SE=1.3; AA level, 87.5 percent, SE=1.0) or assistant teacher (62.8 percent, SE=2.4) with an early childhood-related degree. Among centers employing at least one such teacher, Bay Area centers, on average, employed a lower percentage of such teachers than did centers in other regions of the state, as shown in Table 3.33.

The majority of teachers with a four-year or higher degree held a Child Development Permit, and the majority of centers (61.2 percent) employed at least one teacher with a four-year degree and permit. The percentage of teachers with such certification, on average, did not vary by region, but the percentage of assistant teachers who held a Child Development Permit did. Centers in Central California who employed at least one assistant teacher with an AA or higher degree and a Child Development Permit employed, on average, a greater percentage of such assistants (50.8 percent, SE=4.8) than

**Table 3.32. Teachers with a Bachelor's Degree or Higher: Statewide and By Region**

	Estimated percentage of centers with at least one teacher with a bachelor's degree or higher (SE)	Estimated mean percentage of centers with a bachelor's degree or higher in centers employing at least one such teacher* (SE)	Number of centers
Northern CA	53.1 (2.7)	54.5 (2.4)	647
Bay Area	72.0 (2.2)	50.3 (1.5)	1,820
Central CA	48.2 (2.4)	42.0 (1.8)	1,408
Southern CA	59.2 (2.0)	43.0 (1.4)	3,799
Statewide	59.7 (1.2)	45.8 (0.9)	7,674

*Note.* Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\*  $p < .05$ . Bay Area, Northern CA > Central, Southern CA

**Table 3.33. Teachers with a Bachelor's Degree or Higher in Early Childhood Education: Statewide and By Region**

	Estimated percentage of centers with at least one teacher with a bachelor's degree or higher in early childhood education (SE)	Estimated mean percentage of teachers with a bachelor's degree or higher in early childhood education, in centers employing at least one such teacher (SE)*	Number of centers
Statewide	78.0 (1.3)	83.2 (0.9)	4,404
Northern CA	74.8 (3.3)	85.5 (2.1)	330
Bay Area	75.7 (2.4)	77.5 (1.9)	1,259
Central CA	79.2 (2.8)	86.8 (1.7)	654
Southern CA w/ Los Angeles	79.5 (2.1)	84.9 (1.4)	2,161
Southern CA w/o Los Angeles	76.3 (2.7)	83.9 (1.8)	1,152

*Note.* Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\*p < .05. Sample including LA: Bay Area < all other regions. Sample excluding LA: Bay Area < Northern CA, Central CA.

centers in the Bay Area (26.4 percent, SE=4.0).

Roughly one-quarter of all teachers in the state held a BA or higher degree, and about one-quarter of degreed teachers also held a California teaching credential. Credentialed teachers were concentrated in only 39.6 percent of centers. Centers in Northern California (44.0 percent, SE=3.7) and in the Bay Area (45.7 percent, SE=2.9) were more likely than those in Central California (34.5 percent, SE=3.3) or Southern California (37.0 percent, SE=2.6) to employ at least one teacher with a BA or higher degree and a California teaching credential. Centers in Northern California with at least one credentialed teacher employed, on average, a greater percentage of such teachers (77.6 percent, SE=3.2) than centers in Southern California (63.6 percent, SE=2.8) or the Bay Area (62.7 percent; SE=2.6).

### ***Overall Educational Attainment and Professional Certification, by Ages of Children Served***

Because of proposed increases in qualifications for teachers or assistant teachers working in publicly funded programs targeting four-year-old children, there is considerable interest in whether teachers who currently work with preschoolers differ in educational attainment from those working with younger children. We examined whether centers that enrolled only preschoolers varied in the overall educational level of their teachers and assistants from those that enrolled both infants and

preschoolers.<sup>18</sup>

As shown in Table 3.34, centers that enrolled infants reported a somewhat lower percentage of teachers with BA or higher degrees, and a somewhat higher percentage of teachers with 24 or more credits of early childhood-related college credits. Centers serving infants also reported a slightly lower percentage of assistants with a four-year or higher degree. Director educational attainment varied little whether centers enrolled infants or not. The percentage of centers employing at least one teacher with a degree from a foreign institution did not vary by the ages of children served in the center.

We also examined the extent to which focused education related to early childhood development and certification varied between the teaching staff in centers serving infants and preschoolers and those not serving infants. There were no differences, on average, between these centers with respect to the percentage of centers employing at least one teacher with a California teaching credential or a Child Development Permit, or the percentage of such teachers employed in these centers.

### ***Overall Educational Attainment, and Early Childhood-Related Training, by Centers' Relationship to Public Funding***

Research suggests that children of low-income families derive greater

<sup>18</sup> Because there are so few programs that are licensed to serve infants exclusively, we could not compare those programs to those that serve preschoolers exclusively. Also, because of the complexity of staffing patterns as well as limitations on the length of the survey, we were not able to ask directors to report separately on the characteristics of teachers working exclusively with younger children and those working with older children.

Table 3.34. *Estimated Educational Attainment of Teachers, Assistant Teachers and Directors, By Ages of Enrolled Children: Statewide*

		Estimated percentage					Number of staff
		Bachelor's degree or higher	Associate degree	24 credits + ECE credits	1-23 ECE credits	No degree, no ECE credits	
<b>Teachers</b>	Centers enrolling infants <sup>a</sup>	19.3	27.0	34.3	19.0	0.4	16,737
	Centers without infants	28.9	28.3	27.5	15.0	0.3	26,762
	All centers	25.2	27.8	30.1	16.6	0.3	43,499
<b>Assistant teachers</b>	Centers enrolling infants <sup>a</sup>	4.3	10.2	18.0	54.1	13.4	8,577
	Centers without infants	9.4	13.8	20.4	45.2	11.2	12,636
	All centers	7.4	12.4	19.4	48.8	12.0	21,213
<b>Directors</b>	Centers enrolling infants <sup>a</sup>	55.0	25.0	16.6	3.2	0.2	2,360
	Centers without infants	55.4	26.7	14.3	3.4	0.2	4,514
	All centers	55.3	26.1	15.1	3.3	0.2	6,875

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

<sup>a</sup>Most of these centers also enroll older children.

benefit from higher-quality early care and education programs than do children of middle- and upper-income families (Helburn, 1995). Studies have found programs rated higher in quality to be staffed by teachers and assistant teachers with higher levels of education, and with training specifically focused on early childhood (Helburn, 1995; Galinsky, Howes, Kontos & Shinn, 1994; Whitebook, Howes & Phillips, 1990; Whitebook & Sakai, 1995).

In California, staff in centers receiving public dollars to serve children of low-income families are required to meet different standards, depending on whether their center holds a contract with Head Start or the California Department of Education (CDE), or receives vouchers for children of low-income families. In centers holding contracts, instructional and administrative staff are required to meet higher educational standards than those in centers receiving public dollars through vouchers. Staff working in centers receiving vouchers are not required to meet any additional qualifications beyond what is required for centers receiving no public dollars. Although some centers may set qualifications at a higher level, centers receiving vouchers and centers receiving no public dollars are only required by law to meet the standards mandated by Community Care Licensing.

We found that teachers' educational attainment varied by centers' relationship to public subsidy. As shown in Figures 3.15 and 3.16, centers receiving public dollars through vouchers reported a lower percentage of teachers and directors who had obtained a BA or higher degree. With respect to assistants and teachers who had achieved an AA degree, teachers in contracted centers had higher levels of AA

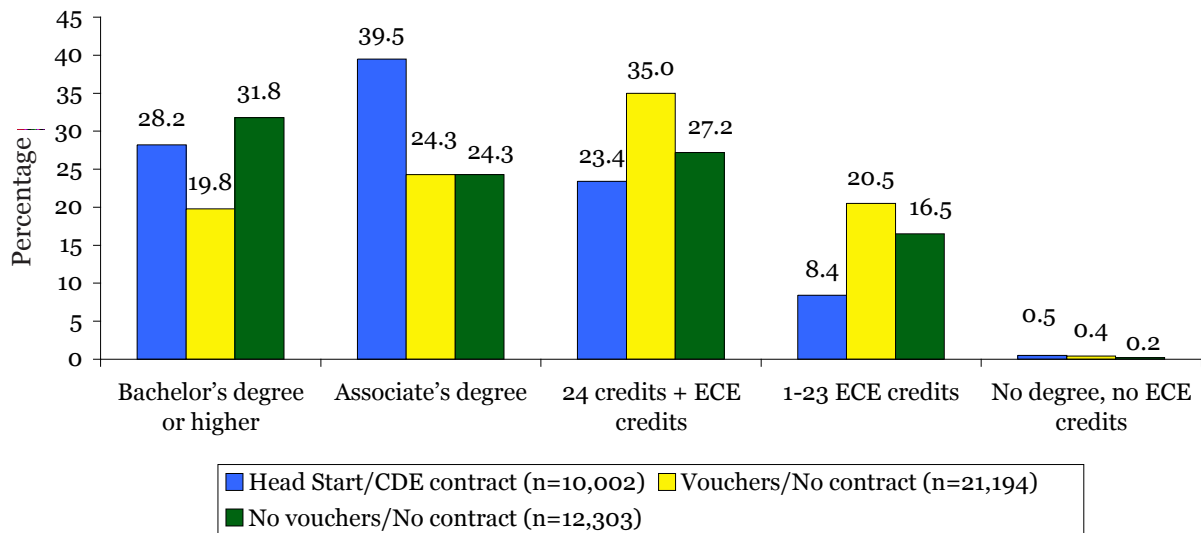
degree attainment than their counterparts in other types of programs, as shown in Figure 3.17. The percentage of centers employing at least one teacher with a degree from a foreign institution did not vary by centers' relationship to public subsidy.

We also examined the extent to which a degree related to early childhood development and certification varied among teaching staff in centers with varying relationships to public subsidy. Among centers employing at least one teacher with an early childhood-related bachelor's degree, centers holding a contract with Head Start or CDE employed a higher percentage of such teachers, on average (86.9 percent, SE=1.6), than centers not receiving any public dollars (77.6 percent, SE=1.8). Centers receiving public dollars through vouchers also employed a higher percentage of teachers with an early childhood-related bachelor's degree, on average (84.8 percent, SE=1.3), than centers not receiving any public dollars. Among centers employing at least one teacher with an early childhood-related associate degree, centers holding a contract with Head Start or CDE employed a higher average percentage of such teachers (96.2 percent, SE=0.7) than centers receiving public dollars through vouchers (90.5 percent, SE=1.1); centers not receiving public subsidies employed an average of 94.2 percent of teachers (SE=1.1) with such a degree.

There were no differences among centers with varying relationships to public subsidy with respect to the percentage of centers employing at least one teacher with a BA or higher degree and a California teaching credential. Centers holding a contract with CDE or

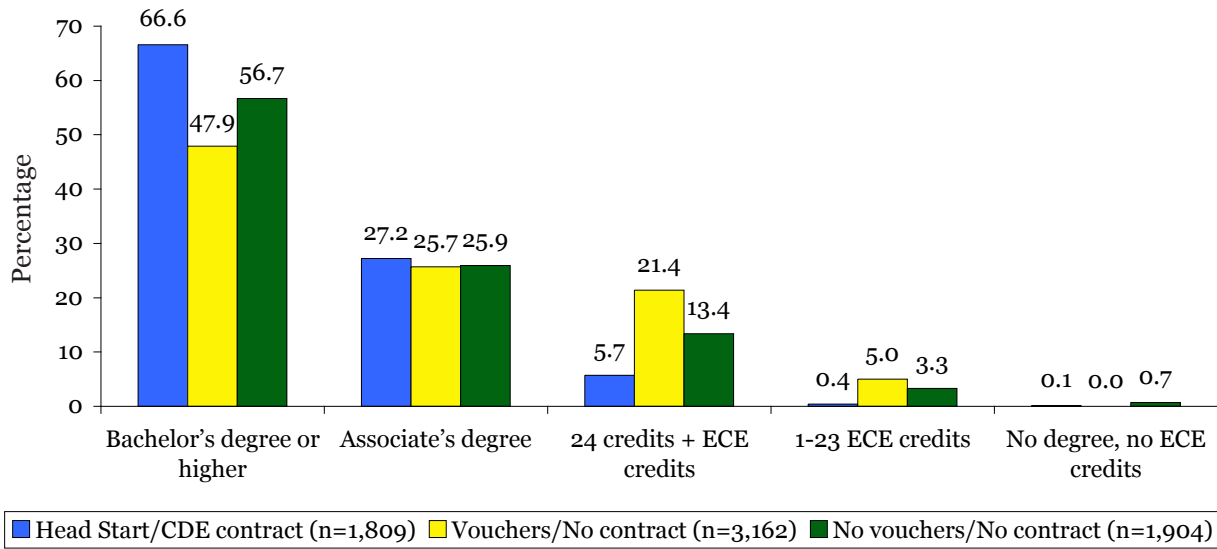


**Figure 3.15. Estimated Educational Attainment of Teachers, By Centers' Relationship to Public Subsidy: Statewide**

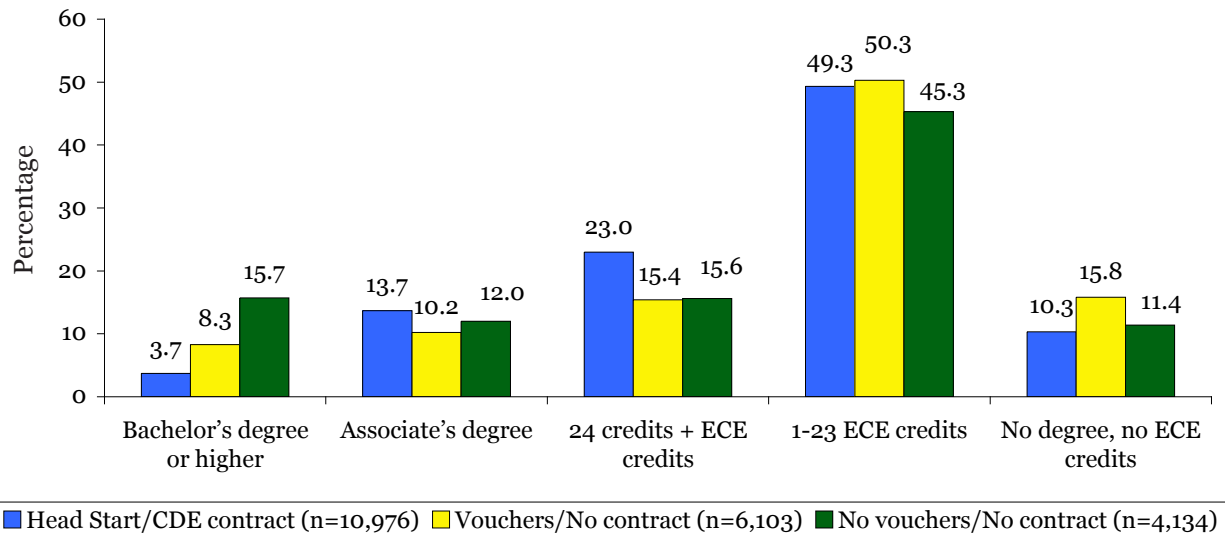


Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

**Figure 3.16. Estimated Education Attainment of Directors, By Centers' Relationship to Public Subsidy: Statewide**



Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Figure 3.17. *Estimated Education Attainment of Assistant Teachers, By Centers' Relationship to Public Subsidy: Statewide*

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Table 3.35. *Estimated Average Percentage of Teachers and Assistant Teachers with Child Development Permits in Centers Employing at Least One Such Teacher: Statewide and By Centers' Relationship to Public Subsidy*

	Estimated average percentage (SE)		
	Teachers with a bachelor's or higher degree*	Teachers with an associate degree*	Assistants with an associate or higher degree**
Head Start/CDE contract	95.3 (0.9)	97.2 (0.6)	90.9 (1.7)
<i>Number of centers</i>	1,129	1,573	548
Vouchers/No contract	78.4 (2.1)	75.4 (2.0)	71.1 (6.1)
<i>Number of centers</i>	818	1,038	132
No vouchers/No contract	77.2 (2.3)	77.8 (2.5)	81.2 (5.0)
<i>Number of centers</i>	683	727	164
Statewide	85.3 (1.0)	86.2 (1.0)	85.9 (1.8)
<i>Number of centers</i>	2,630	3,338	844

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\*  $p < .05$ . Head Start/CDE contract > Vouchers/No contract, No vouchers/No contract.

\*\*  $p < .05$ . Head Start/CDE contract > Vouchers/No contract.

Head Start employed a higher percentage of such teachers (72.4 percent, SE=3.3) than centers not receiving any public dollars (59.0 percent, SE=2.8).

Centers holding a contract with CDE or Head Start also employed the highest percentage of teachers and assistants with Child Development Permits, as shown in Table 3.35.

### ***Overall Educational Attainment, by Teacher and Assistant Demographic Characteristics***

Among teachers and assistant teachers with different levels of education, we examined such characteristics as age, ethnicity and language background.

#### ***1) Overall Educational Attainment, by Age***

Two intertwined concerns arise with regard to the age distribution among teachers and assistants with different levels of educational attainment:

- Is the field attracting younger people to its ranks?
- Are new recruits more or less educated and trained than older, more tenured members of the workforce?

Recent research has documented an alarming national trend of educational decline among the early care and education workforce, with particular concern that the most educated segment of the workforce is approaching retirement at a time when proposed qualifications for teachers are increasing (Herzenberg, Price & Bradley, 2005). As shown in Table 3.36, teachers with BA or higher degrees were older, on average, than teachers with less education. In particular, nearly one-quarter of such

teachers (24.5 percent) were age 50 or older, compared to 15.5 percent of teachers with AA degrees, and 10.4 percent of teachers with no degrees. Among assistant teachers there was little variation in age by educational attainment. Similar patterns were identified across regions and among centers serving children of different ages or with varying relationships to public subsidy.

#### ***2) Overall Educational Attainment, by Ethnicity***

We examined teacher and assistant teacher ethnicity and educational background along three dimensions:

1. the ethnic distribution of teachers and assistants across different levels of formal education;
2. the distribution of educational attainment within various ethnic groups, and
3. the ethnic distribution of teachers at different levels of education, compared to that of California's adult population.

Combined, these analyses provide a picture of how well teachers of various ethnic groups are represented at different educational levels, how this distribution reflects general trends in the population, and where direct supports and incentives might be directed toward particular ethnic groups in order to boost their educational attainment.

The ethnic distribution of teachers and assistant teachers varied across levels of educational attainment, as shown in Table 3.37. White, Non-Hispanic teachers comprised 53.0 percent of all teachers, and they comprised 58.6 percent of teachers with BA or higher degree. Latinas comprised 26.9 percent

**Table 3.36. Estimated Percentage of Teachers By Age and Educational Attainment: Statewide**

	Estimated percentage			
	All teachers	Teachers with bachelor's or higher degree	Teachers with associate degree	Teachers with no degree
Under 29 years old	33.0	23.6	29.1	40.5
30 to 39 years old	29.1	26.4	30.8	29.5
40 to 49 years old	22.5	25.5	24.6	19.6
Over 50 years old	15.4	24.5	15.5	10.4
<i>Total</i>	100.0	100.0	100.0	100.0
<i>Number of staff</i>	140,776	10,901	11,889	19,886

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

**Table 3.37. Estimated Percentage of Teachers By Ethnicity and Educational Attainment: Statewide**

	Estimated percentage			
	All teachers	Teachers with bachelor's or higher degree	Teachers with associate degree	Teachers with no degree
White, Non-Hispanic	53.0	58.6	50.8	51.3
Latina	26.9	13.4	30.2	32.2
African American	7.3	6.2	8.0	7.4
Asian/Pacific Islander	8.0	15.2	7.2	4.7
American Indian or Alaskan Native	0.3	0.3	0.4	0.2
Multiethnic	2.2	2.8	1.8	2.1
Other	2.3	3.5	1.6	2.1
<i>Total</i>	100.0	100.0	100.0	100.0
<i>Number of teachers</i>	43,289	10,999	13,045	20,245

Note. Based on a sample of 1921 centers, weighted to represent the population of licensed centers.

of all teachers, but only 13.4 percent of teachers with BA or higher degrees. African American teachers comprised 7.3 percent of all teachers, and roughly the same percentage of teachers with a BA or higher degree (6.2 percent). Although Asian/Pacific Islanders constituted only 8.0 percent of all teachers, they comprised 15.2 percent of those who reported a BA or higher degree as their highest level of educational attainment. A similar pattern was found among assistant teachers.

In determining the distribution of educational attainment (as represented by completion of degrees) within various ethnic groups, we found that 28.1 percent of White, Non-Hispanic, 21.5 percent of African American, 12.6 percent of Latina, and 48.2 percent of Asian/Pacific Islander teachers had completed a four-year degree or higher. (See Table 3.38.) Among assistant teachers, 24.2 percent of White, Non-Hispanics and 35 percent of Asian/Pacific Islanders had completed a four-year degree or higher.

Next, we sought to determine the ethnic distribution of teachers at different levels of education, as compared to California's overall adult population. For example, were Latina teachers more or less likely than other Latino adults in California to have achieved a BA degree? To make this comparison, we examined data from the 2000 U.S. Census on California adults' attainment of BA or higher degrees. Latina, African American, and Asian/Pacific Islander teachers had attained BA or higher degrees at higher rates than their counterparts in the overall state population (all Latino adults, 5.8 percent; all African American adults, 17.2 percent; all Asian/Pacific Islander adults, 40.9 percent). White, Non-Hispanic teachers, however, were less likely to have

earned a BA than White, Non-Hispanic California adults (33.8 percent).

### *3) Overall Educational Attainment, by Language*

Since many of California's young children speak a first language other than English, and many have parents with limited English proficiency, there is understandable concern about the ability of the early care and education workforce to communicate well with children and their adult family members, and to create learning environments for children that build upon their first language as a foundation for successful mastery of English (Garcia, 2005; Sakai & Whitebook, 2003; Wong-Fillmore & Snow, 1999). Because of the commonly shared goal among policy makers and advocates to build not only a more educated but an ethnically and linguistically diverse early care and education workforce (Calderon, 2005), it is important to understand how language capacity varies among teachers and assistant teachers with different levels of educational attainment, in order to design and target professional development resources.

The following is an analysis of educational attainment by language, but it is important to note that language ability was reported by directors, rather than independently verified; we also were unable to determine whether teachers and assistants who spoke a language besides English fluently were also fluent in English. Finally, this study does not permit us to assess whether or not there was a linguistic match between teaching staff and the children they served.

Our analyses focused on the percentage of teachers and assistants

Table 3.38. *Estimated Percentage of Teachers with a Bachelor's Degree or Higher, Associates Degree or No Degree, By Ethnicity: Statewide and By Region*

		Estimated percentage				Number of teachers
		Bachelor's or higher degree	Associate degree	No degree	Total	
<b>All centers</b>	White, Non-Hispanic	28.1	26.7	45.2	100.0	22,936
	Latina	12.6	31.3	56.1	100.0	11,629
	African American	21.5	30.7	47.7	100.0	3,157
	Asian/Pacific Islander	48.2	24.8	27.0	100.0	3,481
<b>Northern CA</b>	White, Non-Hispanic	25.5	31.1	43.4	100.0	2,083
	Latina	9.6	32.6	57.8	100.0	261
	African American	27.3	36.3	36.4	100.0	21
	Asian/Pacific Islander	54.9	15.1	30.0	100.0	39
<b>Bay Area</b>	White, Non-Hispanic	38.5	23.4	38.1	100.0	5,605
	Latina	13.1	24.1	62.8	100.0	1,854
	African American	22.3	25.2	52.5	100.0	859
	Asian/Pacific Islander	48.4	24.5	27.1	100.0	1,774
<b>Central CA</b>	White, Non-Hispanic	20.4	33.4	46.2	100.0	3,967
	Latina	11.4	37.1	51.5	100.0	2,196
	African American	11.4	37.9	50.7	100.0	443
	Asian/Pacific Islander	29.7	37.0	33.3	100.0	351
<b>Southern CA w/ Los Angeles</b>	White, Non-Hispanic	26.1	25.1	48.8	100.0	11,282
	Latina	13.0	31.3	55.7	100.0	7,317
	African American	23.7	31.4	44.9	100.0	1,834
	Asian/Pacific Islander	52.7	22.2	25.1	100.0	1,318
<b>Southern CA w/o Los Angeles</b>	White, Non-Hispanic	26.7	24.0	49.3	100.0	7,028
	Latina	12.3	30.0	57.7	100.0	3,710
	African American	19.5	32.6	47.9	100.0	631
	Asian/Pacific Islander	51.3	22.5	26.2	100.0	651

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

at different educational levels who had the director-reported capacity to communicate with children in a language other than English. Across all educational levels, 36.5 percent of teachers and 49.3 percent of assistant teachers had such a capacity. Teachers with AA degrees, on average, were somewhat more likely than either teachers with BA or higher degrees or teachers with no degrees to have this linguistic capacity, as shown in Table 3.39. We do not know, however, which teachers at any educational level were bilingual, and which spoke a language other than English fluently but were limited in their English skills.

Among assistant teachers, there was no virtually no difference in the percentage of those with an AA or higher degree (49.3 percent) and those with no degree (50.7 percent) who spoke a language other than English fluently.

Also shown in Table 3.39 are the percentages of teachers at various educational levels, by region, with the director-reported capacity to communicate fluently in a language other than English. Within regions, the percentages of teachers at various educational levels with this linguistic capacity were relatively consistent. Table 3.39 shows the percentage of teachers at various educational levels, by center type, with this director-reported linguistic capacity. Centers serving infants and preschoolers employed a higher percentage of such teachers at all educational levels than centers not serving infants, most notably teachers with AA degrees. Centers holding a contract with Head Start or CDE employed a higher percentage of teachers who could communicate fluently with children and families in a language other than

English than centers receiving vouchers or those receiving no public funding. In contracted programs, the most notable difference from other types of centers was among teachers without degrees, followed by teachers with AA degrees. Centers receiving vouchers employed a somewhat more linguistically diverse teaching staff than non-subsidized centers.



**Table 3.39. Estimated Percentage of Teachers at Different Levels of Educational Attainment Who Speak A Language Other Than English Fluently: Statewide, By Ages of Enrolled Children, By Region, and By Centers' Relationship to Public Subsidy**

	Estimated percentage		
	Teachers with Bachelor's degree or higher	Teachers with Associate degree	Teachers with no degree
Statewide	34.7	39.7	35.7
<i>Number of teachers</i>	10,928	12,041	20,398
Centers Enrolling Infants	36.2	44.0	36.7
<i>Number of teachers</i>	3,223	4,498	8,949
Centers without Infants	34.0	37.1	34.9
<i>Number of teachers</i>	7,705	7,544	11,449
Northern CA	17.4	13.9	17.5
<i>Number of teachers</i>	612	780	1,112
Bay Area	36.1	35.6	38.1
<i>Number of teachers</i>	3,657	2,475	4,666
Central CA	30.5	38.7	30.8
<i>Number of teachers</i>	1,276	2,538	3,418
Southern CA w/ Los Angeles	36.7	44.9	38.0
<i>Number of teachers</i>	5,383	6,248	11,202
Southern CA w/o Los Angeles	32.9	40.4	34.3
<i>Number of teachers</i>	2,983	3,287	6,286
Head Start/CDE contract	40.9	54.4	60.9
<i>Number of teachers</i>	2,818	3,946	3,218
Vouchers/No contract	37.7	34.5	31.6
<i>Number of teachers</i>	4,203	5,105	11,782
No vouchers/No contract	26.9	28.9	29.5
<i>Number of teachers</i>	3,907	2,990	5,397

*Note.* Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

## How well prepared are licensed centers to care for and educate children who are dual language learners or have special needs?

*Only about one-third of centers employ teachers who have participated in non-credit training, and only 17 percent employ teachers who have completed college coursework, focused on dual language learning in young children, despite the growing numbers of young children in California who speak a language other than English in their homes. Centers that report that at least one of their teachers has participated in training or courses related to dual language learning report somewhat higher overall levels of education among their teachers. Centers that report employing at least one teacher who has participated in training or college courses related to dual language learning also employ a higher percentage of teachers who speak a language other than or in addition to English.*

*Many more teachers have participated in professional development related to working with children with special needs. Three-quarters of centers report that at least one of their teachers has participated in non-credit training, and about two-thirds report that at least one of their teachers has completed college credits, related to children with special needs. Centers that report caring for at least one child with special needs also report higher levels of teacher professional development related to working with children with special needs. Centers that hold a contract with Head Start or CDE also employ a higher percentage of teachers with relevant professional development.*

As California considers how best to prepare its workforce to meet the needs of its young children, particular concern centers on two groups of children:

- the growing number who are dual language learners, many of them from immigrant families; and
- the growing number who have been identified as having special developmental needs.

A pressing question is whether the current early care and education workforce has sufficient skill and knowledge to meet the needs of these children. While it was beyond the scope of this study to assess the overall knowledge and competencies of center-based teaching staff, our interview did allow some initial exploration of teachers' professional preparation related

to dual language learners and/or children with special needs.<sup>19</sup>

### ***Preparation to Work with Young Children Acquiring a Second Language***

In 2005, more than one-third of children entering public kindergarten in California were estimated to be dual language learners (California Department of Education, 2005). According to recent projections of the growth of this segment of California's population over the next several decades (Hill, Johnson & Tafoya, 2004), it is likely that soon the majority of young children receiving early care and

<sup>19</sup> Directors were asked the number of teachers in their centers who had participated in credit-bearing coursework or non-credit training focused on working with children who were dual language learners and/or those with special needs. Because of concern about the length of the survey, these questions were not asked with respect to directors or assistants.

**Table 3.40. Estimated Mean Percentage of Teachers Completing at Least One Hour of Non-Credit Training and/or at Least One College Credit Related to Dual Language Learning Children: Statewide**

	Estimated percentage (SE)
Non-credit training	28.6 (1.1)
<b>Number of centers</b>	<b>7,100</b>
College credits	17.2 (0.9)
<b>Number of centers</b>	<b>6,656</b>

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

education services will be dual language learners and/or living in families in which some or all of the adults do not speak English.

In this survey, we were able only to investigate which languages teachers spoke, not the languages spoken by children in their care. We know, however, from anecdotal reports that a sizeable portion of teachers in many areas of the state either care for children for whom English is a second language or will likely be called upon to do so over the course of their careers. We also know from a recent survey of early childhood teacher preparation programs in California institutions of higher education (Whitebook, Bellm, Lee & Sakai, 2005) that only one-quarter of these programs require a course focused on second-language acquisition in young children, suggesting that exposure to professional development around these issues through college courses is limited.

Our goal was to ascertain the extent to which teachers had received any training focused on this topic, by asking directors

**Table 3.41. Estimated Percentage of Centers Employing at Least One Teacher With Non-Credit Training and/or College Credits Related to Dual Language Learning Children: Statewide**

	Estimated percentage (SE)
At least 1 teacher with non-credit training	39.4 (1.3)
<b>Number of centers</b>	<b>7,100</b>
At least 1 teacher with college credits	30.3 (1.2)
<b>Number of centers</b>	<b>6,656</b>

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

whether their teachers had participated in relevant credit-bearing courses and/or non-credit training. Most had not: directors reported that, on average, only 28.6 percent of teachers had received non-credit training, and only 17.2 percent had completed college coursework, focused on dual language learning in young children. (See Table 3.40.) We estimate that 60.6 percent of centers (SE=1.3) had no teachers with non-credit training, and 69.6 percent (SE=1.2) had no teachers who had taken college courses, related to dual language learning in children. (See Table 3.41.)

There were no differences between centers serving infants and those serving older children with respect to teacher professional preparation related to working with dual language learners. Centers in Central California reported the highest average percentage of teachers who had participated in relevant coursework and training.

The average percentage of teachers who had participated in professional development related to dual language

learning varied by the centers' relationship to public subsidies. As shown in Figure 3.18, centers operating under a contract with Head Start or the California Department of Education reported that nearly two-thirds of teachers, on average, had participated in training, and nearly one-third of teachers, on average, had completed college credits, related to dual language learning in young children. Centers receiving no public dollars or those receiving vouchers for at least one child reported that their teachers were three to four times less likely than teachers in contracted centers to have participated in such professional development.

We next examined whether centers employing at least one teacher with either non-credit training or college credits related to dual language learning in children varied with respect to the percentage of teachers with AA or higher degrees. As shown in Table 3.42, centers with at least one teacher who had participated in such training or coursework were staffed with a somewhat higher percentage of teachers who had earned an AA or higher degree, compared to centers with no teachers who had received professional development related to dual language learners.

Centers employing at least one teacher who had participated in training or coursework related to dual language learning also reported a higher average percentage of bilingual teachers, whether they spoke English and Spanish, or English and at least one other language. At centers employing at least one teacher who had participated in dual language-related professional development, 47.6 percent (SE=1.5) of teachers, on average, spoke a language other than English,

compared with 34.1 percent (SE=1.1) at centers with no teachers participating in training. On average, 49.3 percent (SE=1.7) of teachers spoke a language other than English at centers employing at least one teacher with *college credits* related to dual language learning children, compared with 32.9 percent (SE=1.1) of teachers at centers employing no teachers with such college credits.

### ***Preparation to Work with Young Children With Special Needs***

Over the last 30 years, the deepening understanding of and ability to identify developmental challenges, coupled with changes in federal law,<sup>20</sup> have led to the increased involvement of early childhood settings in providing services to children with special physical and developmental needs and/or disabilities (Shonkoff & Phillips, 2000). Recognizing that the early care and education workforce was being increasingly called upon to provide such services, the California Legislature passed SB 1703 in 2000, supporting local child care resource and referral programs and child care planning councils in providing training related to children with special needs. This funding was renewed in 2005.

<sup>20</sup> Two federal laws in particular have contributed to the inclusion of children with special needs in early childhood programs. The American with Disabilities Act (ADA), a federal civil rights law passed in 1990, prohibits discrimination by child care centers and family child care providers against individuals with disabilities. The ADA requires providers to assess, on a case-by-case basis, what a child with a disability requires in order to be fully integrated into a program, and whether reasonable accommodation can be made to allow this to happen. In addition, the Individuals with Disabilities Education Act, passed in 1975 and reauthorized in 2004, requires public schools to meet the educational needs of children as young as three with disabilities, guarantees early intervention services to infants and toddlers up to age three in their "natural environments," and addresses the transition of infants and toddlers from early intervention services to preschool programs. California's equivalent law, the Early Intervention Services Act, is also known as Early Start (Child Care Law Center, 2005).

**Table 3.42. Estimated Mean Percentage of Teachers with AA, BA or Higher Degrees With Non-Credit Training and/or College Credits Related to Dual Language Learning Children: Statewide**

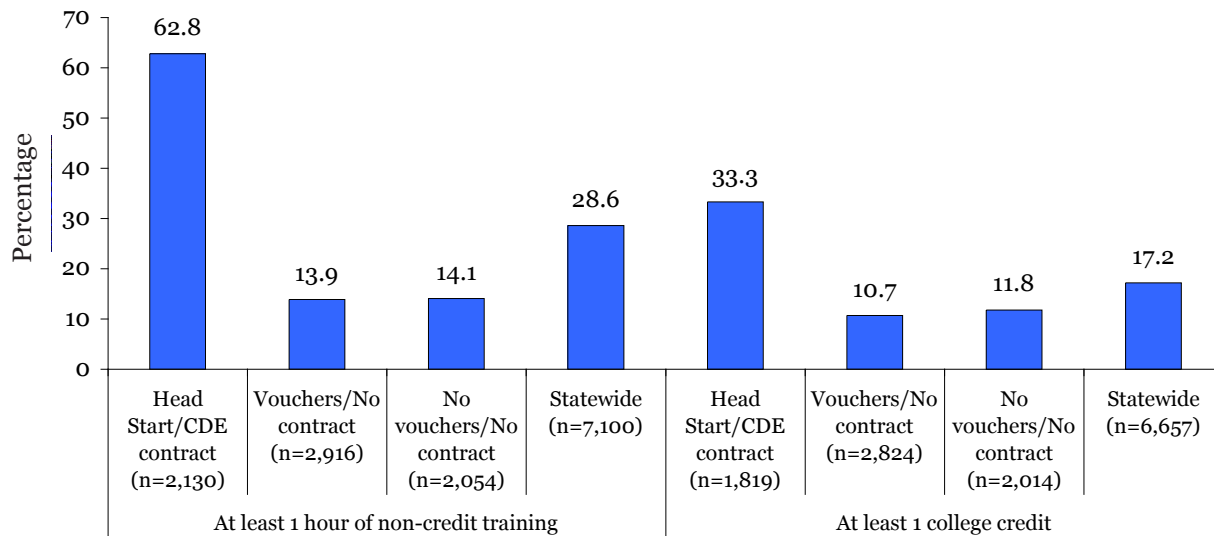
	Mean percentage (SE)	
	Teachers with an Associate degree*	Teachers with a Bachelor's degree or higher**
No teachers with non-credit training	25.7 (0.9)	25.2 (1.0)
<i>Number of centers</i>	4,264	4,261
At least 1 teacher with non-credit training	38.0 (1.3)	30.3 (1.3)
<i>Number of centers</i>	2,761	2,761
No teachers with college credits	28.4 (0.9)	24.0 (0.9)
<i>Number of centers</i>	4,603	4,603
At least 1 teacher with college credits	33.7 (1.5)	33.7 (1.6)
<i>Number of centers</i>	2,004	2,004

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\*  $p < .05$ . Centers with no teachers with non-credit training < centers with at least one teacher with non-credit training. Centers with no teachers with college credits < centers with at least one teacher with college credits.

\*\*  $p < .05$ . Centers with no teachers with non-credit training < centers with at least one teacher with non-credit training.

**Figure 3.18: Estimated Mean Percentage of Teachers Who Have Completed Non-Credit Training and/or College Credits Related to Dual Language Learning Children: Statewide, and by Centers' Relationship to Public Subsidy**



Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.



**Table 3.43. Estimated Percentage of Centers Employing at Least One Teacher with Non-Credit Training and/or College Credits Related to Children with Special Needs: Statewide**

	Estimated percentage (SE)
At least 1 teacher with non-credit training	74.0 (1.1)
<i>Number of centers</i>	7,198
At least 1 teacher with college credits	63.1 (1.3)
<i>Number of centers</i>	6,616

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

For this study, we were interested in determining whether center teachers had received professional preparation related to children with special needs. Specifically, we determined:

1. whether or not centers employed any teachers who had participated in special needs-related training or college courses,
2. the average percentage of teachers in centers who had participated in special needs-related training or college courses, and
3. whether centers that reported caring for at least one child with special needs employed a higher percentage of teachers who had participated in relevant education and training.

#### *Overall Levels of Special Needs-Related Training and Courses*

Roughly three-quarters (74.0 percent) of centers reported that at least one of their teachers had participated in non-credit training related to children with special needs. Fewer centers (63.1 percent) reported that at least one of their teachers had participated in college

credit-bearing courses on children with special needs. (See Table 3.43.) On average, such centers reported that 75.4 percent (SE=9.6) of their teachers had participated in non-credit training and 56.1 percent (SE=1.1) in college courses related to children with special needs.

The average percentage of teachers who had participated in non-credit training and college credits related to children with special needs varied with respect to region, center relationship to public subsidy, and the average educational background of teaching staff. As shown in Table 3.44, centers in the Bay Area reported, on average, the lowest percentage of teachers who had completed non-credit training and college credits, Northern California centers reported the highest percentage of teachers with non-credit training, and Central California centers reported the highest percentage of teachers with college credits.

Also shown in Table 3.44, the percentage of teachers who had participated in non-credit training and college courses related to children with special needs varied by the centers' relationship to public subsidies. Centers that held a contract with Head Start or CDE reported significantly higher percentages of teachers who had participated in special needs-related training or college courses than did centers receiving vouchers or centers receiving no public dollars.

Centers that reported at least one teacher with non-credit training or college credits related to children with special needs also reported somewhat higher educational levels among their teachers, as shown in Table 3.45. Centers with a higher percentage of teachers who had participated in non-credit training related

to children with special needs reported a higher average percentage of teachers who had completed an AA or higher degree. With respect to college credits related to children with special needs, centers reporting that at least one teacher had completed credits also reported that a higher percentage of their teachers had completed AA, but not BA, degrees.

The average percentage of teachers who had participated in training or college credits related to children with special needs did not vary by whether centers served infants or only older children.

*Special Needs-Related Credits and Training, by Number of Children with Special Needs Served*

Overall, 55.8 percent of centers (SE=1.2) reported caring for at least one child with special needs. As shown in Tables 3.46 and 3.47, centers caring for at least one child with special needs employed a higher percent of teachers who had participated in non-credit or credit-bearing special needs training than centers caring for no such children. Among centers that had at least one child with special needs in their care, 66.2 percent of teachers had participated in relevant non-credit training, whereas only 41.8 percent of teachers in centers with no children with special needs had done so. Centers that enrolled at least one child with special needs also reported higher average percentages of teachers (40.9 percent) who had completed college credits related to children with special needs than centers that did not enroll any such children (28.2 percent). Across regions, centers caring for at least one child with special needs reported higher percentages of teachers who had participated in relevant non-credit training, as shown in Table 3.46. With

respect to college credits, as shown in Table 3.47, centers in the Bay Area and Southern California also demonstrated this pattern.



Table 3.44. *Estimated Mean Percentage of Teachers with Non-Credit Training and College Credits Related to Children with Special Needs: Statewide, By Region, and by Centers' Relationship to Public Subsidy*

	Estimated mean percentage (SE)								
	State-wide	Northern CA	Bay Area	Central CA	Southern CA w/ Los Angeles	Southern CA w/o Los Angeles	Head Start/CDE contract	Vouchers/No contract	No vouchers/No contract
Non-credit training*	55.8 (1.1)	64.1 (2.3)	52.7 (2.2)	58.1 (2.1)	54.9 (1.8)	57.1 (2.0)	76.8 (1.7)	47.1 (1.7)	46.5 (2.1)
<i>Number of centers</i>	7,198	620	1,645	1,307	3,625	2,002	2,157	2,954	2,087
College credits**	35.4 (1.0)	38.5 (2.2)	29.3 (1.7)	41.7 (2.0)	35.5 (1.6)	36.1 (1.9)	52.5 (2.0)	28.4 (1.4)	29.1 (1.7)
<i>Number of centers</i>	6,166	584	1,607	1,187	3,238	1,826	1,862	2,781	1,973

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\* p < .05. Northern CA > Bay Area, Southern CA with Los Angeles; Head Start/CDE contract > vouchers/no contract, no vouchers/no contract.

\*\* p < .05. Northern CA, Central CA > Bay Area.

Table 3.45. *Estimated Mean Percentage of Teachers with AA, BA or Higher Degrees in Centers Employing or Not Employing Teachers with Non-Credit Training and/or College Credits Related to Children with Special Needs: Statewide*

	Mean percentage (SE)		
	Teachers with AA degree*	Teachers with BA or higher degree**	Number of centers
No teachers with non-credit training	21.6 (1.4)	24.8 (1.5)	1,845
At least 1 teacher with non-credit training	33.2 (0.9)	28.7 (0.9)	5,262
No teachers with college credits	25.4 (1.3)	25.8 (1.4)	2,415
At least 1 teacher with college credits	32.6 (1.0)	28.2 (1.0)	4,153

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\* p < .05. At least one teacher with non-credit training > No teachers with non-credit training. At least one teacher with college credits > No teachers with college credits.

\*\* p < .05. At least one teacher with college credits > No teachers with college credits.

**Table 3.46. Estimated Mean Percentage of Teachers with Non-Credit Training Related to Children with Special Needs, by Number of Such Children Enrolled: Statewide and By Region**

	Estimated mean percentage (SE)				
	Statewide	Northern CA	Bay Area	Central CA	Southern CA
No child with special needs	41.8 (1.7)	47.9 (3.7)	38.3 (3.1)	43.4 (3.2)	41.9 (2.7)
At least 1 child with special needs*	66.2 (1.4)	75.9 (2.6)	64.8 (2.8)	68.3 (2.6)	64.4 (2.2)
<i>Number of centers</i>	7077	613	1624	1288	3552

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\*p < .05. At least one child with special needs > no child with special needs (statewide and for all regions).

**Table 3.47. Estimated Mean Percentage of Teachers with College Credits Related to Children with Special Needs, by Number of Such Children Enrolled: Statewide and By Region**

	Estimated mean percentage (SE)				
	Statewide*	Northern CA	Bay Area*	Central CA	Southern CA*
No child with special needs	28.2 (1.4)	32.0 (3.5)	20.8 (2.1)	36.4 (3.0)	28.5 (2.4)
At least 1 child with special needs	40.9 (1.3)	43.8 (2.9)	36.4 (2.5)	44.9 (2.8)	41.1 (2.2)
<i>Number of Centers</i>	6,526	574	1,590	1,171	3,191

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

\*p < .05, At least one child with special needs > no child with special needs.

# Discussion

This report provides the latest comprehensive profile of California's center-based early care and education workforce. Here, we briefly comment on the findings we consider most relevant to current efforts to design and improve policies that impact the quality and availability of services for young children prior to kindergarten.

Our study has sought to answer five overarching questions:

1. Who are the teachers, assistant teachers and directors in California's licensed child care centers?
2. What are the characteristics of children in California child care centers licensed to serve infants and/or preschoolers?
3. What is the level of educational attainment and early childhood development-related training among teachers, assistants, and directors in California's child care centers?
4. How do levels of overall educational attainment, and professional preparation related to early childhood development, vary among teachers, assistant teachers and directors employed in centers licensed to serve infants and/or preschoolers?
5. How well prepared are teachers to care for and educate children who are dual language learners or have special needs?

## **1) Who are the teachers, assistant teachers and directors in California's licensed child care centers?**

*In California, a teacher in a child care center licensed to serve infants and/or preschoolers is slightly more likely to be White, Non Hispanic than she is to be a woman of color. Assistant teachers are more diverse, and more closely reflect the ethnic distribution of children ages birth to five in California, than teachers or directors. Still, teachers are more ethnically diverse than K-12 teachers. Compared to women in California, teachers and assistant teachers are more likely to be under age 30 and less likely to be over 50 years of age. Slightly more than one-third of teachers, nearly one-half of assistant teachers, and one-quarter of directors are able to speak a language other than English fluently, most typically Spanish.*

*These demographic profiles vary, however, among regions of the state and by such center characteristics as age group of children served and relationship to public subsidy. For example, as with the population as a whole, center teaching staff in Northern California are more likely to be White, Non-Hispanic than their counterparts in Central and Southern California. Centers holding contracts with Head Start or the California Department of Education are more likely to employ teachers who speak a language other than English than are centers receiving public dollars through vouchers, or those receiving no public dollars.*

*The typical teacher and assistant teacher have worked in their present jobs for less than five years, while the typical director has been on the job for more than five years. The highest-paid teachers with a BA earn, on average, between \$14.03 and \$18.62 an hour, depending on the region of the state in which they reside. The highest-paid assistants can expect to earn \$9.28 an hour, on average, if they work in a center receiving public dollars through a voucher, and \$11.21 an hour in a center holding a contract with Head Start or CDE.*

California's early care and education (ECE) workforce is much more ethnically and linguistically diverse than its teachers of Grades K-12. Approximately three-quarters of the state's K-12 teachers, but only about one-half of its child care center teachers, are White, Non-Hispanic. Child care center teachers also more closely match the diversity of children in the state, and assistant teachers are even more diverse. This richness of linguistic and cultural diversity provides a promising foundation on which to revamp and expand services for California's young children.

But this comparison with the K-12 workforce can also obscure the stratification by ethnicity that does exist in the ECE workforce. Our data reveal substantial divisions by ethnicity and language that require attention. Stated simply, most child care center directors are White, Non-Hispanic, whereas most assistant teachers are women of color. For example, 15.9 percent of directors, 26.9 percent of teachers and 42.0 percent of assistant teachers are Latinas. Similarly, about one-half of assistant teachers can communicate with children in a language other than English, whereas only one-

third of teachers and one-quarter of directors report such linguistic skills.

In light of the continuing efforts to upgrade the knowledge and skills of California's early care and education workforce – in particular, the proposed increase in educational standards for teachers in publicly-funded preschool – the challenge will be to intentionally maintain and expand this workforce diversity. This can only be done by investing in a range of appropriate supports that will truly allow people from a wide spectrum of cultural, educational and financial backgrounds to access professional development opportunities. A proactive strategy will be essential, including scholarships, tutoring, conveniently scheduled and located classes, and resources for students learning English as a second language. The goal must extend beyond building a diverse workforce to ensuring that such diversity is well distributed across all positions and all types of child care centers.

Another comparison with the K-12 teacher workforce reveals serious instability of staffing in California's child care centers. Twice as many teachers in child care centers (22 percent) as K-12 teachers (11 percent) leave their jobs each year (Alliance for Excellent Education, 2005). Although many centers reported no turnover among teaching staff during the last year, a sizeable portion reported that about one-third of their teachers and 40 percent of their assistant teachers had left their jobs. Turnover was even higher in programs serving infants and those serving children receiving subsidy. Only about one-third of teachers, and less than one-third of assistant teachers, had been working in their centers for five years or

more.

Given the documented relationship between turnover and program quality, the persistence of high turnover in the ECE field, often linked with poor compensation, is of serious concern. The highest-paid teachers in this study with BA or higher degrees earned \$19.60 per hour, or \$40,768 per year, compared to a mean annual salary for California K-12 teachers of \$50,370, typically distributed over a shorter work year. Should publicly funded preschool positions become available, at pay levels comparable to those of K-12 teachers, it is likely that many in the ECE workforce will seek these new opportunities. While this will likely create some disruption, comparable wages carry the possibility of a more stable teacher workforce, at least among teachers of four-year-olds. It is less clear what impact this shift could have on other staff positions – notably assistant teachers, teachers of younger children, and even directors – absent some equivalent overall increase in ECE workforce compensation.

## **2) What are the characteristics of children in California child care centers licensed to serve infants and/or preschoolers?**

*In California, approximately 65,000 teachers and assistants care for and educate approximately one-half million children in centers licensed to serve infants and/or preschoolers. Approximately 90 percent of the children cared for in these centers are not yet in kindergarten, and two-thirds are between the ages of three and five. Seven percent are children under age two, about 12 percent are age two, and about 10 percent are in kindergarten or a higher grade. Less than five percent of children in these centers are reported by directors to have special needs.*

*Nearly 75 percent of centers report caring for at least one child who receives public child care assistance. Forty percent of centers receive public dollars in the form of vouchers, and one-third of centers receive public dollars through a contract with Head Start or the California Department of Education, to cover the cost of care for the subsidized children they serve. Centers vary considerably in size, with one-quarter enrolling 36 or fewer children and one-quarter enrolling over 90 children.*

Our study provides a picture of the size and organization of centers licensed to serve children birth to five, as well as the children attending these centers in terms of age, special needs, and whether their families receive public subsidies to cover the cost of their care.

With respect to center size and organization, licensed child care centers serving children prior to kindergarten are notably diverse. While the majority of centers are operated on a nonprofit basis, a sizeable portion are publicly operated or organized as for-profit businesses. Although centers, on average, serve about 70 children and employ about nine teaching staff, one-quarter of centers either are very small businesses or are organizations approaching the size of many elementary schools. On the one hand, this variety speaks to the richness of options available to families, as well as varied opportunities for those seeking to work in or operate child care centers. Yet this diversity also helps to explain the challenge in reaching consensus about workforce standards, or employee benefits

such as health insurance, retirement assistance or professional development, all of which may have different implications depending on a center's size and organization.

With respect to age, the standard practice among centers statewide is to care for children between the ages of two and five. Centers care for more children in the two-to-five age range than under age two, largely because of differing staffing requirements (and associated costs) for serving infants and toddlers. The child composition and financial stability of centers may shift if more spaces become available for four-year-olds through publicly funded preschool.

For many years in California, only centers contracting with the CDE or Head Start received public dollars to cover the cost of serving subsidized children. But over the last two decades, public dollars have become available to both for-profit and nonprofit centers, as well as licensed and license-exempt home-based care. Remarkably, more centers now receive



public dollars in the form of vouchers than through contracts. The question arises whether public dollars are being used to provide high-quality services to young children, since centers (and homes) accepting voucher recipients are not required to meet any standards beyond basic licensing requirements, widely acknowledged as minimal at best. Of additional concern is the fact that many contracted centers are reimbursed at a lower rate per child than centers receiving public dollars through vouchers, despite the fact (discussed more fully below) that contracted centers on average employ staff with higher levels of education and more early childhood professional preparation.

While an assessment of quality was beyond the scope of this study, our findings do point to the potential leverage for improving quality that could be linked to the voucher system, since it currently touches such a high proportion of licensed centers in the state. Given the documented benefits to young children from low-income families who attend a high-quality early childhood program (Helburn, 1995), it is fitting to explore how public dollars could be used to upgrade these settings as a way to narrow the achievement gap between children of low-income families and those from better-off families.

Further discussion of children with special needs can be found below, under question 5.

### **3) What is the level of educational attainment and early childhood development-related training among teachers, assistants, and directors in California's child care centers?**

*Compared to California's overall female population, teachers working in centers enrolling infants and/or preschoolers are more likely to have attended college and/or completed a two-year degree. They are equally likely to have completed a four-year or higher college degree, and less likely to have completed high school only.*

*One-quarter of teachers have completed a four-year or graduate degree, and slightly more than one-quarter have completed a two-year degree, typically with an early childhood focus. Forty percent of centers, however, do not employ any teachers with a four-year or higher degree.*

*Assistant teachers in California are also more likely than the average female in the state to have attended college and/or completed a two-year degree, but they are less likely to have obtained a four-year or higher degree. Assistant teachers have lower levels of degree attainment than teachers or directors. Approximately one-half of assistant teachers have completed from 1 to 23 college credits related to early childhood development. Only 12 percent have completed neither college credits nor a degree related to early childhood.*

*More than three-quarters of directors have completed a two-year, four-year or higher degree, typically with an early childhood focus. Directors are more than twice as likely as teachers to have completed a four-year or higher degree, and have completed associate degrees at roughly the same rate as teachers.*

*The majority of degree holders have completed a degree related to early childhood development. Approximately one-quarter of those with BA or higher degrees obtained their degree through a foreign institution.*

*Across the state, about one-third of teachers and one-quarter of assistant teachers employed in counties with a CARES or similar program are current participants in it. About two-thirds of centers report employing at least one teacher who is a CARES participant, and about one-third report employing at least one assistant teacher who is a CARES participant. Within such centers, typically about two-thirds of teachers and assistants are participating.*

*Just over one-half of all teachers with an AA or higher degree hold a Child Development Permit, and just over one-half of all directors hold a Site Supervisor Permit. About one-quarter of teachers and one-third of directors with a BA or higher degree have a teaching credential (as opposed to a permit) issued by the California Commission on Teacher Credentialing.*

People hold conflicting images of the educational and professional preparation of the licensed center-based workforce. Some see center teachers and assistants as a group with limited college-level experience or training, and others point to the increasing numbers of teachers with relatively high levels of educational attainment and involvement in early childhood-related training. As a group, teachers and directors in California child care centers have obtained levels of education that match or exceed the average California adult female, challenging the stereotype that those who work with young children are minimally educated. Assistant teachers have attended college at higher rates, but have completed degrees at lower rates, than the state's adult female population.

Our data suggest that these conflicting public images of the ECE workforce do, however, partly reflect the complex reality that two different sets of standards govern staff qualifications in California child care centers, with more stringent requirements set for staff working in state-contracted programs. In addition, we found that educational attainment and professional preparation of ECE staff varied by type of program and region of the state. Approximately one-quarter of teachers in California child care centers held a bachelor's or higher degree, yet these teachers were not evenly distributed across the state. Bay Area centers reported twice the percentage of teachers with bachelor's or higher degrees reported by their counterparts in Central California. Similarly, contracted centers reported 150 percent more teachers with degrees than centers receiving public dollars through vouchers. With respect to proposed increases in educational requirements for teachers in publicly funded preschool

programs, some ECE teachers may find such new requirements within reach or may have already met them, while others may find it unrealistic to pursue this new opportunity.

As for participation in professional development activities, our findings reveal further variation among centers. It is encouraging that two-thirds of centers reported that at least one teacher was participating in a local CARES or similar program, and that within these centers, a sizeable portion of staff were CARES participants, suggesting that many centers were engaged in upgrading the education and training of their staff. Efforts to extend such programs to additional counties and child care centers are worthy of attention.

With respect to certification, the low number of Child Development Permit holders in the center-based ECE workforce reflects California's current regulatory environment, which only requires permits for staff in contracted programs. The reported rates of permit holders would be even lower were it not for CARES programs, which in recent years have begun requiring participants to acquire Child Development Permits. This rate of certification is in stark contrast to K-12 teachers, who are required to become credentialed in order to work in the public schools. As discussions move forward concerning higher educational qualifications for teachers in publicly funded preschool programs, including a credential or other certification, it is now an opportune time to address the larger issue of California's overall lack of uniform requirements for the ECE teaching workforce.

#### **4) How do levels of overall educational attainment, and professional preparation related to early childhood development, vary among teachers, assistant teachers and directors employed in centers licensed to serve infants and/or preschoolers?**

*Levels of education among teachers, assistant teachers and directors vary by region, and generally follow the patterns of variation in educational attainment among all adults in the state, with Bay Area centers being the most likely to employ at least one teacher with a BA or higher degree.*

*Centers that enroll both infants and preschoolers report a somewhat lower percentage of teachers with BA or higher degrees than those enrolling preschoolers but no infants.*

*Educational attainment also varies by centers' relationship to public subsidy. Centers receiving public dollars through vouchers report a lower percentage of teachers and directors who have obtained a BA or higher degree than all other centers. Centers holding a Head Start or CDE contract report higher levels of AA degree attainment among their teachers. Teachers in contracted centers are also the most likely to hold a Child Development Permit.*

*Educational attainment varies by age among teachers, but not among assistant teachers. Teachers with Bachelor's or higher degrees are older, on average, than those with less education.*

*Teachers' educational attainment also varies by ethnicity and language: among those with Bachelor's or higher degrees, compared to the ethnic distribution among the teacher population as a whole, White, Non-Hispanic and African American teachers are represented proportionately, while Asian/Pacific Islanders are over-represented and Latinas are under-represented. About 40 percent of Asian/Pacific Islander, 25 percent of White, Non-Hispanic, 20 percent of African American and 12 percent of Latina teachers have completed a BA or higher degree. Latina, African American and Asian/Pacific Islander teachers have attained BA or higher degrees at higher rates than their counterparts in the overall state population, while White, Non-Hispanic teachers are less likely to have earned a BA than White, Non-Hispanic California adults.*

*With respect to linguistic capacity, teachers with AA degrees, on average, are somewhat more likely than either teachers with BA or higher degrees, or teachers with no degrees, to have the capacity to communicate with children in a language other than English. Among assistant teachers, there is little or no variation by educational attainment in the percentage of those who speak a language other than English fluently.*

A well-trained, culturally diverse and competent workforce serving young children, wherever they live in the state and whatever their family income, is the stated goal of many who are involved in efforts to improve and expand early care and education services. By examining how the educational and professional preparation of the current workforce varies along several dimensions, these data point to the need for a differential strategy for targeting professional development resources for the current and emerging workforce if this goal is to be met.

Although regional variations in the overall educational attainment of the child care center workforce reflect patterns found among *all* adults in the state, they nevertheless require attention in order to address current disparities among centers serving young children in various parts of the state. In some regions, such as Central California, where there are relatively fewer teachers with BA or higher degrees, proposed increases in teacher qualifications related to publicly-funded preschool will pose a greater challenge. Current efforts in various parts of the state to expand higher education offerings to more remote communities without college campuses, to utilize distance learning, and to engage community agencies in offering credit-bearing training, should be strengthened and expanded.

Generally, our findings confirm that most centers serve children under age four, and thus they underscore how important it is for early childhood-related training to focus on infants, toddlers and young preschoolers as well as four-year-olds. At the same time – since many centers, whether they choose to become publicly-funded preschool sites or not,

are likely to continue caring for four years olds as well as younger children for much of the day – it is important that training opportunities be made available to all who work with children prior to kindergarten, not just those serving as teachers and instructional aides in publicly-funded classrooms.

Another area of inequity with regard to teacher background documented in this study concerns variation among centers with varying relationships to public subsidy. The fact that teacher educational levels in centers receiving vouchers were significantly lower than those in contracted centers reflects current regulations, but nonetheless raises concern about the overall quality of education and care that children, particularly children of low-income families, receive in such centers. It also points to the greater challenge these programs would face in meeting higher educational standards in order to become part of a publicly funded preschool system.

While a sizeable portion of teachers and assistants working in centers were found to be relatively young when compared to the average adult female in the state, this study confirmed the troubling finding from previous studies that the most educated segment of the center teacher workforce is older than the teacher population as a whole (Herzenberg, Price & Bradley, 2005). Teachers with BA and higher degrees were more likely to be over age 50 and approaching retirement at a time when the demand is rising for teachers with such qualifications. This suggests that in addition to assisting current members of the workforce in achieving college degrees, California also needs a strategy



to recruit college graduates to early childhood teaching positions, which should include a strategy to improve compensation, in order to make such employment more attractive to well-educated young candidates.

With regard to educational attainment by ethnicity, Asian/Pacific Islander, African American and Latina providers demonstrated very different patterns. Asian/Pacific Islanders comprised a higher proportion of teachers with college degrees than of teachers as a whole. African Americans were proportionately represented among those with four-year or higher degrees. Latinas, however, were under-represented among degree holders and over-represented among those for whom high school was the highest level of education. Many communities recognize this phenomenon and are engaged in efforts to make college more accessible to Latina providers, in part by providing entry-level early childhood courses in Spanish, and intentionally using early childhood-related content as a vehicle for helping Spanish speakers build the English skills necessary to complete college degrees.

On a more promising note, it is important to recognize that early care and education appears to be a field of opportunity to some extent for teachers of color. Latina, African American, and Asian/Pacific Islander teachers had attained BA or higher degrees at higher rates than their counterparts in the overall state population, whereas White, Non-Hispanic teachers were less likely to have earned a BA than White, Non-Hispanic California adults. What is not possible to determine from these data is whether this is a reflection of limited opportunities in other fields or a choice on the part

of these teachers. It is also particularly striking that assistant teachers were the most linguistically diverse segment of the ECE workforce, pointing to the need for greater attention to this population in terms of access to higher education and professional development.

Our finding that many degree holders had obtained their degrees from a foreign institution also shows the importance of providing resources for transcript translation and review. This may enable providers who seek certification to reduce the likelihood of having to repeat classes, which is now common for foreign degree holders.

## **5) How well prepared are teachers to care for and educate children who are dual language learners or have special needs?**

*Only about one-third of centers employ teachers who have participated in non-credit training, and only 17 percent employ teachers who have completed college coursework, focused on dual language learning in young children, despite the growing numbers of young children in California who speak a language other than English in their homes. Centers that report that at least one of their teachers has participated in training or courses related to dual language learning report somewhat higher overall levels of education among their teachers. Centers that report employing at least one teacher who has participated in training or college courses related to dual language learning also employ a higher percentage of teachers who speak a language other than or in addition to English.*

*Many more teachers have participated in professional development related to working with children with special needs. Three-quarters of centers report that at least one of their teachers has participated in non-credit training, and about two-thirds report that at least one of their teachers has completed college credits, related to children with special needs. Centers that report caring for at least one child with special needs also report higher levels of teacher professional development related to working with children with special needs. Centers that hold a contract with Head Start or CDE also employ a higher percentage of teachers with relevant professional development.*

Our data show that the vast majority of child care center teachers in California have not engaged in either non-credit or credit-bearing training related to dual language learning. This is largely because such training and coursework are not generally available, reflecting the need to update the courses of study at our training institutions, both college- and community-based, and to expand the pool of instructors who are knowledgeable about this subject (Whitebook, Bellm, Lee & Sakai, 2005).

By contrast, many more teachers in the state have received training or college coursework related to serving children with special needs. This is a reflection of an intentional strategy, supported by resources through SB 1703, to make such training available. The passage in 2005 of SB 640, extending this training

program conducted by local R&Rs and other agencies, has the potential to reach even more of the center-based ECE workforce with important information related to children with special needs. A similar effort around dual language learning is much needed. Additionally, more advanced coursework and training in these subjects must be offered if we hope to build an early care and education workforce that is well prepared to meet the diverse needs of California's young children.



\* \* \* \* \*

In the last five years, with the availability of more resources for children ages 0 to 5 flowing through local and state First 5 Commissions and other sources, there has been a concerted effort to expand professional development opportunities for the early care and education workforce, and to make these offerings more relevant and accessible. In the process of expanding resources, however, many of the limitations of the state's current professional development infrastructure have become more visible.

Now, as California and various counties embark on creating publicly funded preschool programs, there is an opportunity to develop comprehensive state and local plans for professional development that are inclusive of teachers and providers in a variety of settings, whether they work primarily with four-year-olds or with younger and older children. As their foundation, such plans should reflect the latest information about what practitioners need to know and do in order to help children realize their potential.

Policy issues to be considered include: the challenges of operating a program with multiple funding streams and different qualifications and pay scales for teachers working with children of different ages; the impact on the supply of care for infants, toddlers and three-year-olds if centers choose to serve four-year-olds exclusively; the extent of career opportunities for teachers and assistants who meet publicly funded preschool standards; and the availability of educational and quality improvement pathways for teaching staff who work in programs that do not become either public preschool sites or affiliated extended-day services. The data reported here do not address these scenarios directly, but provide a baseline description of the current landscape that can help frame additional research.

This study has provided a snapshot of the center-based early care and education workforce in 2005, capturing current strengths and areas in need of improvement. It is to be hoped that future assessments will document great strides toward creating an even more diverse, culturally competent workforce, well prepared to meet the needs of California's young children.

# **Appendix A: Additional Tables**

Table A1. *Estimated Age Range of Assistant Teachers: By Ages of Children Served*

	Estimated percentage		
	Statewide	Centers enrolling infants <sup>a</sup>	Centers without infants
29 years or younger	48.7	60.7	40.7
30 to 39 years	26.7	23.8	28.5
40 to 49 years	15.3	10.2	18.7
50 years or older	9.3	5.3	12.0
<i>Total</i>	100.0	100.0	100.0
<i>Number of assistant teachers</i>	20,539	8,179	12,360

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

<sup>a</sup>Most of these centers also enroll older children,

Table A2. *Estimated Age Range of Assistant Teachers: By Centers' Relationship to Public Subsidy*

	Estimated percentage			
	Statewide	Head Start/CDE contract	Vouchers/No contract	No vouchers/No contract
29 years or younger	48.7	47.0	53.8	45.4
30 to 39 years	26.7	27.3	26.3	25.6
40 to 49 years	15.3	15.5	13.0	18.3
50 years or older	9.3	10.2	6.9	10.7
<i>Total</i>	100.0	100.0	100.0	100.0
<i>Number of assistant teachers</i>	70,539	10,279	6,136	4,124

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Table A3. *Estimated Age Range of Assistant Teachers: Statewide and by Region*

	Estimated percentage				
	Statewide	Northern CA	Bay Area	Central CA	Southern CA
29 years or younger	48.7	57.9	43.9	52.3	48.1
30 to 39 years	26.7	21.4	24.8	29.0	27.2
40 to 49 years	15.3	11.6	21.1	13.0	14.6
50 years or older	9.3	9.1	10.2	5.7	10.1
<i>Total</i>	100.0	100.0	100.0	100.0	100.0
<i>Number of assistant teachers</i>	20,539	1,399	3,854	3,482	11,804

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Table A4. *Estimated Ethnicity of Teachers, Assistant Teachers and Directors, By Ages of Children Served*

		Estimated percentage		
		All centers	Centers enrolling infants <sup>a</sup>	Centers without infants
<b>Teachers</b>	White, Non-Hispanic	53.0	49.7	55.0
	Latina	26.9	30.3	24.8
	African American	7.3	7.8	7.0
	Asian/Pacific Islander	8.0	7.6	8.3
	American Indian or Alaskan Native	0.3	0.3	0.3
	Multiethnic	2.2	1.4	2.7
	Other	2.3	2.8	2.0
	<i>Total</i>	100.0	100.0	100.0
	<i>Number of teachers</i>	43,290	16,707	26,603
<b>Assistant teachers</b>	White, Non-Hispanic	36.9	37.8	36.3
	Latina	42.0	43.6	40.8
	African American	8.1	5.3	10.0
	Asian/Pacific Islander	8.1	7.8	8.3
	American Indian or Alaskan Native	0.4	0.4	0.4
	Multiethnic	1.6	1.6	1.5
	Other	2.9	3.4	2.6
	<i>Total</i>	100.0	100.0	100.0
	<i>Number of assistant teachers</i>	20,833	8,485	12,348
<b>Directors</b>	White, Non-Hispanic	62.6	62.5	62.7
	Latina	15.9	19.8	13.9
	African American	8.6	7.4	9.3
	Asian/Pacific Islander	6.1	4.3	7.0
	American Indian or Alaskan Native	6.4	0.7	0.6
	Multiethnic	3.8	3.7	3.9
	Other	2.3	2.0	2.5
	<i>Total</i>	100.0	100.0	100.0
	<i>Number of directors</i>	6,852	2,355	4,497

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

<sup>a</sup>Most of these centers also enroll older children.

Table A5. *Estimated Distribution of Assistant Teachers, Teachers and Directors Who Work with Infants and Preschool Children: By Region*

		Assistant teachers	Teachers	Directors	Total
<b>Northern CA</b>	Total number	1,440	2,534	367	4,341
	Percentage	33.2	58.4	8.4	100.0
<b>Bay Area</b>	Total number	4,462	11,276	1,446	17,184
	Percentage	26.0	65.6	8.4	100.0
<b>Central CA</b>	Total number	3,658	7,444	1,200	12,302
	Percentage	29.7	60.5	9.8	100.0
<b>Southern CA</b>	Total number	13,070	23,326	3,894	40,290
	Percentage	32.4	57.9	9.7	100.0

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Table A6. *Estimated Percentage of Centers that Care for At Least One Child with Special Needs: By Region and By Ages of Children Served*

	Estimated percentage (SE)						
	State-wide	Centers enrolling infants <sup>a</sup>	Centers without infants	Northern CA	Bay Area	Central CA	Southern CA
No children with special needs	44.2 (1.2)	40.3 (2.6)	45.5 (1.4)	40.7 (2.7)	47.5 (2.4)	44.1 (2.3)	43.2 (2.0)
At least one child with special needs*	55.8 (1.2)	59.7 (2.6)	54.5 (1.4)	59.3 (2.7)	52.5 (2.4)	55.9 (2.3)	56.8 (2.0)
<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Number of centers</i>	7,723	1,928	5,795	646	1,837	1,424	3,815

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

<sup>a</sup> Most of these centers also enroll older children.

Table A7. *Estimated Percentage of Assistant Teachers By Age and Educational Attainment: Statewide*

	Estimated percentage		
	All assistant teachers	Assistants with associate or higher degree	Assistants with no degree
Under 29 years old	48.7	40.8	50.7
30 to 39 years old	26.7	29.5	25.9
40 to 49 years old	15.3	19.0	14.4
Over 50 years old	9.3	10.7	9.0
<i>Total</i>	100.0	100.0	100.0
<i>Number of staff</i>	20,548	4,151	16,397

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Table A8. *Estimated Percentage of Teachers and Assistant Teachers By Age and Educational Attainment: By Region*

		Estimated percentage						
		All teachers	Teachers with bachelor's or higher degree	Teachers with associate degree	Teachers with no degree	All assistant teachers	Assistants with associate or higher degree	Assistants with no degree
<b>Northern CA</b>	Under 29 years old	37.8	29.8	30.7	47.1	57.9	48.2	60.2
	30 to 39 years old	23.7	21.9	28.7	21.2	21.4	23.4	20.9
	40 to 49 years old	22.6	23.5	24.5	20.8	11.6	14.9	10.8
	Over 50 years old	15.9	24.8	16.1	10.9	9.1	13.5	8.1
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of staff</i>	2,523	608	780	1,135	1,399	272	1,127
<b>Bay Area</b>	Under 29 years old	28.2	23.3	26.4	33.2	43.9	31.1	48.2
	30 to 39 years old	27.7	24.7	28.3	29.7	24.8	28.0	23.8
	40 to 49 years old	24.4	24.1	26.1	23.9	21.1	29.8	18.2
	Over 50 years old	19.7	27.9	19.2	13.2	10.2	11.1	9.8
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of staff</i>	10,714	3,687	2,463	4,564	3,854	957	2,897
<b>Central CA</b>	Under 29 years old	38.1	28.5	33.2	45.8	52.4	47.9	53.5
	30 to 39 years old	31.0	33.1	31.0	30.2	29.0	32.5	28.1
	40 to 49 years old	19.1	19.3	22.5	16.3	12.9	13.9	12.7
	Over 50 years old	11.8	19.1	13.3	7.7	5.7	5.7	5.7
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of staff</i>	6,894	1,242	2,532	3,120	3,491	660	2,831

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Table A8. *Estimated Percentage of Teachers and Assistant Teachers By Age and Educational Attainment: By Region*

		Estimated percentage						
		All teachers	Teachers with bachelor's or higher degree	Teachers with associate degree	Teachers with no degree	All assistant teachers	Assistants with associate or higher degree	Assistants with no degree
<b>Southern CA</b>	Under 29 years old	33.2	21.9	28.3	41.3	48.1	41.9	49.6
	30 to 39 years old	29.8	26.5	32.1	30.1	27.2	30.1	26.5
	40 to 49 years old	22.6	28.2	24.8	18.6	14.5	16.4	14.1
	Over 50 years old	14.4	23.4	14.8	10.0	10.2	11.6	9.8
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of staff</i>	22,546	5,364	6,115	11,067	11,805	2,262	9,543

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.



Table A9. *Estimated Percentage of Teachers and Assistant Teachers by Age and Educational Attainment: By Ages of Children Enrolled and Centers' Relationship to Public Subsidy*

		Estimated percentage						
		All teachers	Teachers with bachelor's or higher degree	Teachers with associate degree	Teachers with no degree	All assistant teachers	Assistants with associate or higher degree	Assistants with no degree
<b>Centers enrolling infants</b>	Under 29 years old	44.3	33.2	40.9	50.3	60.7	54.7	61.8
	30 to 39 years old	28.0	27.7	31.1	26.4	23.8	30.4	22.6
	40 to 49 years old	18.6	24.1	19	16.3	10.2	10.5	10.2
	Over 50 years old	9.1	15.0	9.0	7.0	5.3	4.4	5.4
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of staff</i>	16,391	3,318	4,434	8,639	8,173	1,235	6,938
<b>Centers without infants</b>	Under 29 years old	26.0	19.4	22.1	33.0	40.8	34.9	42.6
	30 to 39 years old	29.8	25.8	30.7	31.9	28.5	29.2	28.3
	40 to 49 years old	24.9	26.2	27.9	22.0	18.6	22.5	17.5
	Over 50 years old	19.3	28.6	19.3	13.1	12.1	13.4	11.6
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of staff</i>	26,285	7,583	7,455	11,247	12,376	2,917	9,459
<b>Head Start/CDE contract</b>	Under 29 years old	23.6	19.2	19.4	32.8	47.0	45.2	47.3
	30 to 39 years old	31.8	26.1	34.5	33.6	27.3	28.0	27.2
	40 to 49 years old	26.4	25.1	29.7	23.4	15.5	17.6	15.0
	Over 50 years old	18.2	29.6	16.4	10.2	10.2	9.2	10.5
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of staff</i>	9,683	2,757	3,872	3,054	10,279	1,909	8,370

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Table A9. *Estimated Percentage of Teachers and Assistant Teachers by Age and Educational Attainment: By Ages of Children Enrolled and Centers' Relationship to Public Subsidy*

		Estimated percentage						
		All teachers	Teachers with bachelor's or higher degree	Teachers with associate degree	Teachers with no degree	All assistant teachers	Assistants with associate or higher degree	Assistants with no degree
<b>Vouchers/ No contract</b>	Under 29 years old	40.4	29.6	39.1	45.0	53.9	44.7	56.0.
	30 to 39 years old	28.2	27.0	31.2	27.4	26.3	29.7	25.5
	40 to 49 years old	19.6	24.2	18.8	18.2	12.9	15.2	12.4
	Over 50 years old	11.8	19.2	10.9	9.4	6.9	10.4	6.1
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of staff</i>	20,703	4,258	5,008	11,437	6,145	1,113	5,032
<b>No vouchers/ No contract</b>	Under 29 years old	28.0	20.1	25.1	35.4	45.4	29.5	51.4
	30 to 39 years old	28.4	25.9	25.6	31.8	25.6	32.1	23.1
	40 to 49 years old	24.3	27.4	27.5	20.2	18.3	24.9	15.8
	Over 50 years old	19.3	26.6	21.8	12.6	10.7	13.5	9.7
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of staff</i>	12,290	3,886	3,009	5,395	4,124	1,129	2,995

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Table A10. *Estimated Percentage of Teachers By Ethnicity and Educational Attainment: Statewide and By Region*

		Estimated percentage					
		State-wide	Northern CA	Bay Area	Central CA	Southern CA w/ Los Angeles	Southern CA w/o Los Angeles
<b>Teachers with bachelor's or higher degree</b>	White, Non-Hispanic	58.6	87.3	58.8	63.5	54.1	63.0
	Latina	13.4	4.1	6.6	19.6	17.5	15.4
	African American	6.2	0.9	5.2	4.0	8.0	4.1
	Asian/Pacific Islander	15.2	3.5	23.4	8.2	12.7	11.2
	American Indian or Alaskan Native	0.3	1.0	0.4	0.2	0.3	0.5
	Multiethnic	2.8	2.2	1.7	3.0	3.5	1.8
	Other	3.5	1.0	3.9	1.5	3.9	4.0
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of teachers</i>	10,999	608	3,670	1,273	5,448	2,975
<b>Teachers with associate degree</b>	White, Non-Hispanic	50.8	83.6	52.2	51.8	45.6	52.0
	Latina	30.2	10.9	17.7	31.9	36.9	34.2
	African American	8.0	1.0	8.6	6.6	9.3	6.3
	Asian/Pacific Islander	7.2	0.8	17.2	5.1	4.7	4.5
	American Indian or Alaskan Native	0.4	2.0	0.7	0.2	0.2	0.4
	Multiethnic	1.8	1.5	1.7	2.5	1.7	1.6
	Other	1.6	0.2	1.9	1.9	1.6	1.0
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of teachers</i>	13,045	726	2,518	2,554	6,197	3,251
<b>Teachers with no degree</b>	White, Non-Hispanic	51.3	80.5	46.7	53.7	49.4	56.0
	Latina	32.2	13.4	25.5	33.2	36.6	34.5
	African American	7.4	0.7	9.9	6.6	7.4	4.9
	Asian/Pacific Islander	4.7	1.0	10.5	3.4	3.0	2.8
	American Indian or Alaskan Native	0.2	1.0	0.5	0.3	0.0	0.1
	Multiethnic	2.1	2.9	3.1	1.7	1.8	0.7
	Other	2.1	0.5	3.8	1.1	1.8	1.0
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of teachers</i>	20,245	1,123	4,569	3,411	11,142	6,186

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Table A11. *Estimated Percentage of Assistant Teachers by Ethnicity and Educational Attainment: Statewide and by Region*

		Estimated percentage						
		All assistant teachers	State-wide	Northern CA	Bay Area	Central CA	Southern CA w/ Los Angeles	Southern CA w/o Los Angeles
<b>Assistant teachers with associate or higher degree</b>	White, Non-Hispanic	36.9	44.4	75.8	46.4	38.7	41.2	43.9
	Latina	42.0	27.6	14.4	12.7	43.5	30.7	27.8
	African American	8.1	6.8	1.9	5.9	6.2	8.0	8.2
	Asian/Pacific Islander	8.1	14.2	3.3	29.1	7.7	11.4	12.4
	American Indian or Alaskan Native	0.4	0.2	1.3	0.0	0.0	0.2	0.4
	Multiethnic	1.6	2.3	2.6	1.4	1.0	3.0	2.1
	Other	2.9	4.5	0.7	4.5	2.9	5.5	5.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of assistants		20,834	4,185	296	936	660	2,293	1,333
<b>Assistant teachers with no degree</b>	White, Non-Hispanic		35.0	72.0	39.3	34.6	29.6	39.5
	Latina		45.6	20.8	30.8	51.0	51.4	46.2
	African American		8.5	0.8	8.8	6.0	9.9	6.1
	Asian/Pacific Islander		6.6	1.4	15.6	3.9	5.3	4.6
	American Indian or Alaskan Native		0.4	2.6	0.2	0.3	0.3	0.4
	Multiethnic		1.4	1.9	1.4	1.6	1.2	1.0
	Other		2.5	0.5	3.9	2.6	2.3	2.2
	Total		100.0	100.0	100.0	100.0	100.0	100.0
Number of assistants			16,649	1,129	2,944	2,831	9,745	4,472

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Table A12. *Estimated Percentage of Assistants with an Associate or Higher Degree, or No Degree, By Ethnicity: Statewide and By Region*

		Estimated percentage			
		Associate or higher degree	No degree	Total	Number of assistant teachers
<b>All centers</b>	White, Non-Hispanic	24.2	75.8	100.0	7,691
	Latina	13.2	86.8	100.0	8,745
	African American	16.9	83.1	100.0	1,688
	Asian/Pacific Islander	35.0	65.0	100.0	1,696
<b>Northern CA</b>	White, Non-Hispanic	21.6	78.4	100.0	1,036
	Latina	15.3	84.7	100.0	278
	African American	37.6	62.4	100.0	15
	Asian/Pacific Islander	40.0	60.0	100.0	25
<b>Bay Area</b>	White, Non-Hispanic	27.3	72.7	100.0	1,591
	Latina	11.6	88.4	100.0	1,025
	African American	17.6	82.4	100.0	315
	Asian/Pacific Islander	37.2	62.8	100.0	732
<b>Central CA</b>	White, Non-Hispanic	20.7	79.3	100.0	1,235
	Latina	16.6	83.4	100.0	1,731
	African American	19.4	80.6	100.0	171
	Asian/Pacific Islander	31.4	68.6	100.0	161
<b>Southern CA w/ Los Angeles</b>	White, Non-Hispanic	24.7	75.3	100.0	3,829
	Latina	12.3	87.7	100.0	5,711
	African American	16.0	84.0	100.0	1,146
	Asian/Pacific Islander	33.6	66.4	100.0	778
<b>Southern CA w/o Los Angeles</b>	White, Non-Hispanic	24.9	75.1	100.0	2,350
	Latina	15.2	84.8	100.0	2,438
	African American	28.6	71.4	100.0	384
	Asian/Pacific Islander	44.6	55.4	100.0	369

Note. Based on a sample of 1,921 centers, weighted to represent the population of licensed centers.

Table A13. *Estimated Mean Percentage of Teachers with Non-Credit Training and/or College Credits Related to Dual Language Learning Children, by Age of Children Served and Region*

	Estimated mean percentage per center (SE)							
	State-wide	Centers enrolling infants <sup>a</sup>	Centers without infants	Northern CA	Bay Area	Central CA	Southern CA w/Los Angeles	Southern CA w/o Los Angeles
At least one hour of non-credit training	28.5 (1.1)	24.8 (2.1)	29.9 (1.2)	28.9 (2.3)	24.2 (1.9)	34.6 (2.1)	28.4 (1.7)	28.2 (2.0)
<i>Number of centers</i>	<b>7,100</b>	<b>1,728</b>	<b>5,372</b>	<b>607</b>	<b>1,666</b>	<b>1,320</b>	<b>3,507</b>	<b>1,921</b>
At least one college credit	17.2 (0.9)	14.2 (1.6)	18.1 (1.0)	15.8 (1.9)	15.7 (1.6)	19.7 (1.8)	17.2 (1.4)	13.7 (1.4)
<i>Number of centers</i>	<b>6,657</b>	<b>1,592</b>	<b>5,064</b>	<b>582</b>	<b>1,599</b>	<b>1,213</b>	<b>3,263</b>	<b>1,816</b>

Note. Based on a sample of 1921 centers, weighted to represent the population of licensed centers

<sup>a</sup> Most of these centers also enroll older children,

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